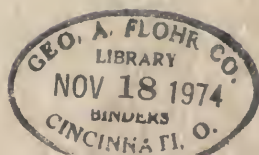


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# REPORTS

—OF

# MINE INSPECTORS

—FOR THE—

First, Second and Third Districts

—OF—

WEST VIRGINIA,

—FOR THE—

Years 1895 and 1896.



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REPORT  
OF  
INSPECTOR OF MINES.

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First District of West Virginia.

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*To His Excellency, WM. A. MACCORKLE,*  
*Governor of West Virginia:*

SIR:—I have the honor to present to you for your consideration, my report as Inspector of Mines, for the First District of West Virginia, for the year ending June 30th, 1895.

I have made two visits through the district during the year, including mines that were in purview of the law, that were in operation, giving especial attention to those mines that were considered dangerous.

There is a general improvement in the methods of work, ventilation, and drainage, throughout the District for the past year.

Fans and furnaces have been added, which greatly improve ventilation. Also, ropes and motors for hauling the coal, have been placed at several of the mines.

There have been no labor troubles during the past year.

All my instructions for the safety of both men and mines, have been promptly and cheerfully complied with.

There is a slight increase of the production of both coal and coke throughout the District, over my last report.

I am sorry to note that there is an increase of the fatal accidents of the past year, over the previous one. This increase was caused

by two explosions, namely: The Blanche Mine explosion, which occurred Nov. 20th, 1894, killing 8 men; and the Monongah Mine explosion, on May 25th, 1895, which killed 4 men. I trust that the direful results of these calamities will be a warning to both operators and miners to use every precaution necessary to prevent a repetition of the same.

I am pleased to say that there has been a decided improvement of the non fatal accidents, the number for this year being less than half for the previous year.

The tables hereto appended will show complete and reliable information on these points, as directed by the mining law of West Virginia.

Very Respectfully,

DAVID M. HARR, *Inspector of Mines of  
the First District of West Virginia.*

Fairmont, West Va., Dec. 31st, 1895.

## DESCRIPTION AND LOCATION OF MINES IN THE FIRST DISTRICT OF WEST VIRGINIA.

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### Brooke County.

#### BLANCHE MINE.

This mine is operated by the Blanche Coal Co., on the P. C. & St. L. R. R., about 18 miles from Wellsburg. Ventilation is produced by furnaces, which produces a volume of 1500 cubic feet of air per minute. It was at this mine where the explosion occurred on Nov. 20, 1894, in which 8 men lost their lives.

On being notified of the fact, I went at once to investigate the cause. I found the cause to be from blasting coal from the solid, which ignited the dust.

I gave them orders to stop shooting coal from the solid, as I had done several times before, also to keep the mine thoroughly watered.

Since they have complied with my instructions the mine is in a good and safe condition.

As long as they work the mine on the present system, I can see no reason to fear a repetition of the former disaster.

#### WELLSBURG MINE.

This mine is located at Wellsburg, it is operated by Forbes, Carmichael & Co., ventilation is produced by furnace, and is good. Roads and drainage are good.

#### COOPER COAL WORKS.

Situated at Short Creek. Operated by Cooper Coal Co. Ventilation natural and fair. Roads and drainage, fairly good.

#### GILCHRIST.

This mine is located at Lazearville, on the P. C. & St. L. R. R., two miles north of Wellsburg. Operated by A. Gilchrist Coal Co. Ventilation is produced by furnace. The ventilation is good. Roads and drainage, good.

**Harrison County.****BRIAR HILL.**

This mine is owned by Briar Hill Coal & Coke Co. Situated on the M. R. R. R., six miles north of Clarksburg. Ventilation is natural and good. Roads and drainage are good.

**GLENN FALLS.**

Glenn Falls Coal & Coke Co., owners and operators. This mine is situated on the M. R. R. R., about 3 miles north of Clarksburg. Ventilation is natural and fairly good. Roads and drainage, good.

**FARNUM MINE.**

This mine is owned and operated by the Pinnickinnick Coal & Coke Co. Situated on the M. R. R. R. There has been considerable improvement made at this mine in the last year. There has been a furnace erected which gives good ventilation. Roads and drainage are good.

**HOWARD.**

This mine is owned and operated by the Howard Coal and Coke Company. Situated at Wilsonburg on the Parkersburg branch of the B. & O. R. R. They have recently erected a furnace, which adds greatly to the ventilation, making it first-class in every respect. Roads and drainage, good.

**DESPARD.**

Owned and operated by the Despard Coal Co. Situated on the B. & O. R. R., one mile east of Clarksburg. Ventilation is produced by natural means and a small furnace. Roads and drainage are good.

**MT. CLAIR.**

This mine is owned and operated by the Mt. Clair Consolidated Coal Co. Ventilation is natural and fairly good. Situated on the W. Va. & P. R. R., about six miles from Clarksburg. Roads and drainage fairly good.

**JACKSON MINE.**

This is a small mine, owned by the same Company. Not coming under the purview of the law. The number of miners is 4; condition, fairly good.

## FALL RUN.

This mine is owned and operated by the Pinnickinnick Coal Co. They have erected a new furnace at this mine since the last report, which produces good results. Situated on the M. R. R. R., two miles north of Clarksburg. Roads and drainage are good.

## CLARKSBURG MINE. ,

This mine is owned and operated by the above company, situated at Clarksburg. They have put up a furnace here, also, since the last report. This furnace produces 14,000 cubic feet of air per minute. Roads and drainage fairly good.

## Marshall County.

## BOGGS RUN.

This mine is on the B. & O. R. R., at Benwood, and is operated by the Boggs Run Mining and Manufacturing Co. Ventilation is produced by fan, and is good. This mine has been considerably improved since my last report by means of rope haulage. The condition of the mine is first class in every respect.

## GLENDALE.

Situated at Glendale on the Baltimore & Ohio R. R. This is a shaft mine 100 feet deep, and is operated by the Glendale Coal Co. Ventilation is produced by fan and is good. The roads and drainage are not good. The mine is situated near the Ohio river and the shaft extends some distance below the level of the river. Consequently, there is much water. Also, gives off considerable fire damp. The fan produces sufficient air to render the mine safe for the present.

## MOUNDSVILLE SHAFT.

Moundsville Coal Company operates this mine at Moundsville. Situated on the B. & O. R. R. Ventilation is produced by fan, and is good. Roads and drainage are good. This mine gives off considerable gas, but up to this date the mine has been carefully looked after.

## Ohio County.

## ELM GROVE.

This is a shaft mine, 108 feet deep. It is operated by the Elm Grove Coal Company. Situated on the Baltimore & Ohio Railroad at Elm Grove. Ventilation is produced by fan, and good results are obtained. Roads and drainage are good.

## MANCHESTER.

Harry Kasley operates this mine in the east part of Wheeling. Ventilation is produced by fan and is very good. Roads and drainage good.

## WHITTAKER.

This mine is also operated by Harry Kasley, and adjoining the Manchester mine. Ventilation is produced by fan, and produces a good circulation of air. At times the air is heavily charged with carbonic acid gas coming from the old Bellmont mines, which makes it very unhealthy for the miners. Roads and drainage are good.

## Preston County.

## OAKLAND.

This mine is owned and operated by the Oakland Coal and Coke Company. Situated at Corinth on the B. & O. Railroad. Ventilation is produced by natural means and at times is not very good. Roads and drainage are not good.

## AUSTEN.

This mine is on the B. & O. Railroad at Austen and is operated by Austen Coke Works. Ventilation is produced by fan and is good. Roads and drainage are good.

## THE WEST COAL AND COKE COMPANY.

Situated at Tunnelton on the Baltimore & Ohio Railroad. Operated by J. X. Hill and L. S. Larew. Ventilation is produced by a small furnace, fairly good. Roads and drainage good.

## TUNNELTON MINES.

Operated by the Merchant Coal Company. Situated at Tunnelton on the Baltimore & Ohio Railroad. Ventilation natural and fairly good. Roads and drainage good.

## Randolph County.

## WOMELSDORF.

This mine is owned and operated by the Womelsdorf Coal Company. Situated on the Roaring Creek and Charleston Railroad. Ventilation is produced by natural means and fairly good. There will be a fan placed at this mine soon. Roads and drainage good.



**Taylor County.****FLEMINGTON.**

This mine is operated by the Flemington Coal and Coke Company. Situated at Flemington on the Baltimore & Ohio Railroad. Ventilation good and produced by natural means. Roads and drainage good.

**TYRCONNELL.**

Operated by the Newburg Coal Company. Situated on the Baltimore & Ohio Railroad at Tyrconnell. Ventilation is produced by natural means, assisted by a furnace and is good. Roads and drainage good.

**Tucker County.****THOMAS SHAFT.**

This mine is owned and operated by the Davis Coal and Coke Company. It is at Thomas on the West Virginia Central Railroad. Ventilation is produced by steam jet and is good. The condition of this mine is better than it has been since it commenced operation.

**THOMAS MINE.**

Is owned and operated by the Davis Coal & Coke Co. Situated at Thomas, on the West Virginia Central Railroad. This is a drift, ventilated by a fan and is good. Roads and drainage good.

**DOUGLAS MINE.**

This mine is owned by the Cumberland Coal Company, and is located at Douglas, on the West Virginia Central Railroad. Ventilation is produced by natural means and a small furnace which makes it good. Roads and drainage are good. This plant has been made more extensive of late.

**COKETON NO. 2.**

This mine is owned and operated by Davis Coal and Coke Co. Situated at Coketon, on the West Virginia Central Railroad. Ventilation is produced by fan and the condition of the mine is first class.

**COKETON NO. 3.**

Is owned and operated by the above named company. Situated at Coketon. Ventilation is good. Roads and drainage not good. There have been extensive improvements here in the way of new coke ovens. The total number now in blast being 361.

**Marion County.****KING MINE.**

This mine is owned by the Virginia and Pittsburg Coal & Co. Co. It is situated on the B. & O. R. R., about 3 miles east of Fairmont. Ventilation is produced by natural means and by steam jet, and is good. Roads and drainage good.

**GASTON MINE.**

Owned and operated by the Gaston Gas Coal Co. It is situated on the M. R. R., about 2 miles from Fairmont. Ventilation is produced by fan, producing a volume of 48,000 cubic feet of air per minute. This air is conducted through the mine in different splits by means of overcasts. Roads and drainage are good.

**PRICHARD.**

Owned and operated by the Clark Coal & Coke Co. On the M. R. R. Ventilation is produced by furnace, and is good. Roads and drainage are good.

**AURORA.**

This mine is operated by the Newburg Orrel Coal Co., situated on the F., M. & P. R. R. Ventilation is produced by furnace, and produces good results. Roads and drainage good.

**CENTRAL MINES.**

Owned and operated by Oliver Jackson. Situated on the B. & O. R. R., one mile from Fairmont. Ventilation is natural and fairly good. Roads and drainage are good.

**CLEMENTS.**

This mine is on the F. M. & P. R. R., and is operated by the Pool Coal and Coke Co. Ventilation is produced by a fan and is good. Roads and drainage are good.

**WEST FAIRMONT.**

This is a shaft mine, owned and operated by the West Fairmont Coal & Coke Co. They have put in a large fan since the last report, which makes the ventilation good. This mine gives off light carburetted gas, or fire damp, in small quantities. Every precaution is taken by the management to prevent accident. Roads and drainage good.



## PALATINE.

This mine is operated by the Newburg Orrel Coal Co. Situated one mile East of Fairmont, on the B. & O. R. R. Ventilation is produced by natural means and is fairly good. Roads and drainage good.

## MONONGAH.

This Company, known as the Monongah Coal and Coke Company, own and operate three mines, situated on the M. R. R., at Monongah. Ventilation is produced by fans, one at each mine.

Mine No. 1 is a slope; gives off gas, but not in dangerous quantities, the fan being sufficient to give ample ventilation. Roads and drainage are good.

Mine No. 2, is a slope.—Ventilation is good. Roads and drainage good.

Mine No. 3, is in a good condition, the fan producing a volume of 31,000 cu. feet of air per minute. Roads and drainage good.

At Mine No. 2 they have an electric motor.

There was an explosion on May 25, 1895, in an entry No. 4, opening into Mine No. 2, causing the death of 4 men. This explosion was caused by a shot blowing out and igniting some powder. Death was caused by suffocation.

## HUTCHINSON.

This is a slope mine situated near Worthington on the M. R. R. It is operated by the Hutchinson Coal & Coke Co. Ventilation is produced by fan and is good. This mine gives off gas in small quantities, but the ventilation is sufficient to render it harmless. Roads and drainage are good.

## MONTANA.

Situated on the F. M. & P. Railroad, six miles north of Fairmont. Owned and operated by the Montana Coal and Coke Company. Ventilation is produced by fan, which makes it good. This mine has made great improvement since my last report, by way of removing the coal from the mine by reversible endless rope, which enables them to produce 2,000 tons of coal per day. Roads and drainage good.

## NEW ENGLAND.

This mine is owned and operated by the West Fairmont Coal and Coke Company. This mine has been opened since my last report. Ventilation is produced by fan. This is the model mine of the district, having all the latest appliances for handling coal and coke. Roads and drainage are good.

**Mineral County.****PIERCE MINE.**

Owned and operated by the Elk Garden Big Vein Mining Company. Situated on the West Virginia Central Railroad. Ventilation is natural. On my last visit I found the mine in a good condition. This mine is no longer worked, not in existence.

**WINDOM.**

This mine is situated at Windom on the West Virginia Central Railroad, and is owned and operated by the Davis Coal and Coke Company. Ventilation is natural and very good. Roads and drainage very good.

**HAMPSHIRE.**

This mine is situated on the W. Va. Central R. R. It is operated by the Davis Coal & Coke Co. Ventilation is natural and good. Roads and drainage good.

**ELK GARDEN.**

Mines No. 6 and 7. These mines are owned and operated by the W. Va. Central and Pittsburg R. R. Co. Situated at Elk Garden. In No. 6 ventilation is produced by natural means and is good. Roads and drainage are good. No. 7 has natural ventilation and is good. Roads and drainage good.

**ATLANTIC.**

Owned and operated by the Georges Creek Consolidated Coal Co. Situated on the West Virginia Central R. R. Its condition has always been good. Work has been suspended here.

**Monongalia County.****ACME.**

Situated on the F. M. & P. R. R. Operated by the Acme Coal & Coke Co. Ventilation is produced by furnace, which is good. The condition of the mine is better than ever before. Roads and drainage good.

**BEECHWOOD.**

This mine is operated by the Hutchinson Coal & Coke Co. Situated on the F. M. & P. R. R. Ventilation is produced by furnace. Roads and drainage good.

# MINE STATISTICS.

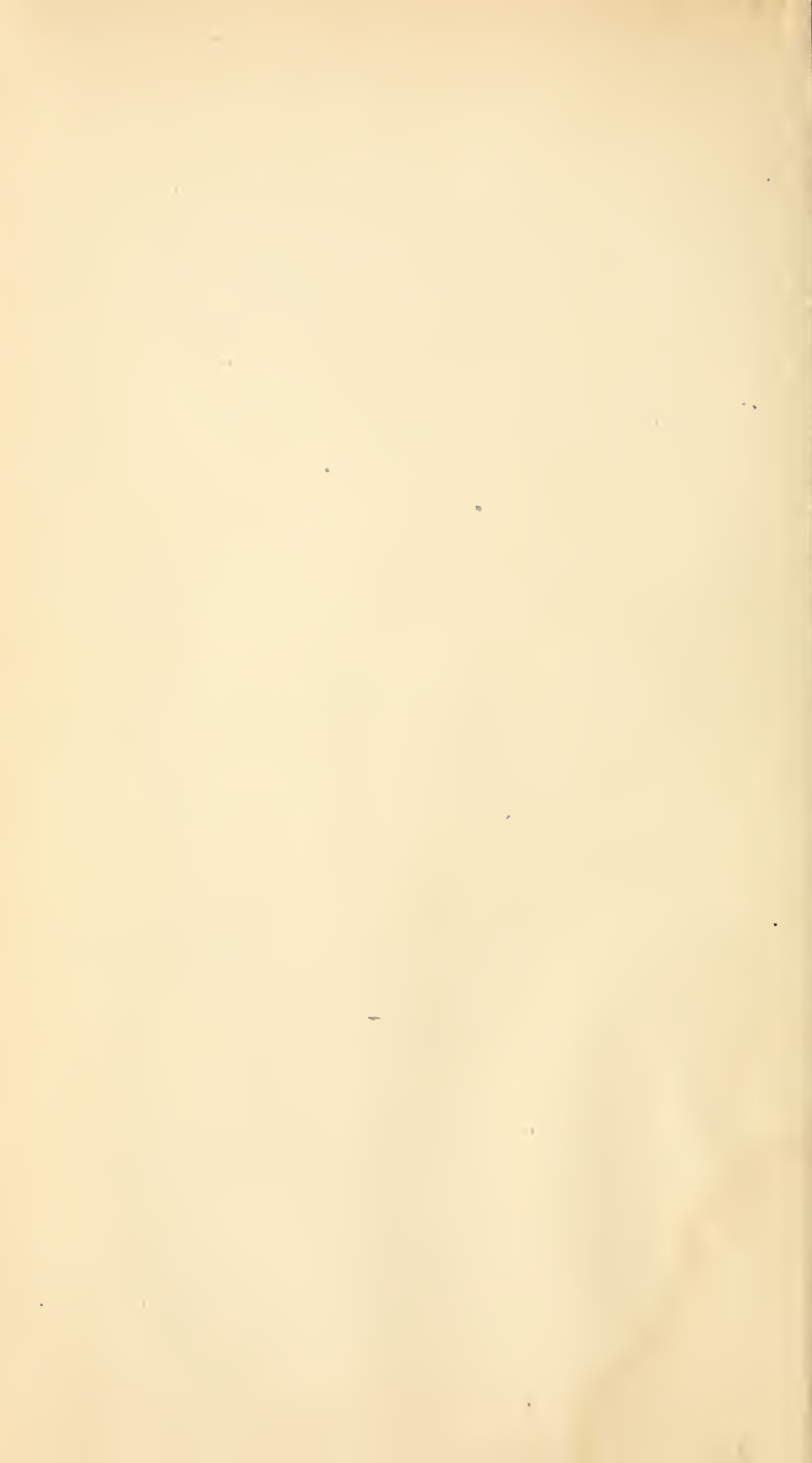


TABLE I.

*Showing the Production of Coal and Coke, by Counties, from July 1, 1894, to December 31, 1894, and from January 1, 1895, to June 30, 1895. First District of West Virginia.*

COUNTIES.	Mines reported	Coal—2240 pounds.			Coke--Tons 2000 pounds.			Coke Ovens.		
		July 1, to December 31, 1894	January 1, to June 30, 1895.	Total	July 1, to December 31, 1894.	January 1, to June 30, 1895.	Total	In blast.	Out of blast.	Total.
Brooke.....	2	18,742	31,271	50,013						
Harrison.....	8	103,367	101,075	204,442	1,706	2,712	4,418	80	72	152
Marion.....	11	629,578	558,759	1,198,336	86,380	69,814	126,194	576	216	792
Marshall.....	3	63,468	74,264	137,762						
Mineral.....	5	312,482	302,298	614,780						
Monongalia.....	2	25,264	22,389	47,653	10,714	11,078	21,792	38		38
Ohio.....	3	44,816	43,875	88,691						
Preston.....	4	11,953	40,432	52,385	803	17,670	18,473	81	68	149
Taylor.....	12	35,311	51,225	86,536	2,906	3,030	5,936	14	11	25
Tucker.....	5	166,688	149,657	316,345	27,309	44,311	71,620	409	32	441
Total.....		1,411,699	1,375,245	2,792,943	129,818	148,615	248,433	1,198	399	1,597

TABLE II.

*Showing Production of Coal and Coke of Each Colliery in the First District of West Virginia, for the year ending June 30, 1895.*

Counties.	NAME OF COLLIERY.	COAL.			COKE.		
		First six months.	Second six months.	Total.	First six months.	Second six months.	Total.
Brooke	Cooper mine.....	8,300	8,300	16,600			
	Gilchrist mine.....	4,412	16,471	20,883			
	Forbes Carmichael Co.....	1,030	1,500	2,530			
	Blanche Mine.....	5,000	5,000	10,000			
				50,013			
Harrison.	Despard mines.....	18,559	16,576	35,135	1,296	2,361	3,657
	Mt. Clair mines.....	12,775	11,485	24,260			
	Howard mine.....	35,690	31,885	67,575			
	Farnum mine.....		8,085	8,085		351	351
	Glennie Falls.....	8,306	2,534	10,840			
	Briar Hill.....	19,310	8,720	28,030	410		410
	Fall Run.....	4,249	11,906	16,155			
	Clarksburg mine.....	4,478	9,864	14,342			
				204,412			4,410
Marion.	West Fairmont Shaft.....	61,877	63,290	130,167	6,557	7,042	13,599
	Hutchinson.....	27,160	27,160	54,320	500	600	1,100
	King mine.....	9,932	20,071	30,003	17	2,980	2,997
	Gaston mine.....	103,490	78,580	180,980	13,112	11,770	24,882
	Prichard.....	23,102	16,480	39,592	3,583	2,839	6,422
	Aurora mine.....	16,425	15,530	31,955			
	Central mine.....	6,316	1,350	7,666	362	341	703
	Clements mine.....	Not reported					
	New England.....		40,708		9,379		9,379
	Montana mines.....	125,741	78,512	204,253	21,655	17,112	38,767
	Palatine mines.....	23,598	22,019	45,617			
	Monogah.....	242,027	190,049	432,076	40,594	17,755	58,345
				1,198,326			126,194
Marshall.	Glendale shaft.....	29,483	33,786	63,269			
	Boggs Run.....	15,815	16,253	32,068			
	Moundsville shaft.....	18,200	24,225	42,425			
				137,762			
Mineral.	Windom mine.....	20,837	15,356	36,193			
	Hampshire mine.....	40,751	48,241	88,995			
	Elk Garden mine.....	206,074	195,616	401,690			
	Atlantic mine.....	26,733	24,994	51,727			
	Pierce mine.....	18,087	18,088	36,175			
				614,780			
Monongalia.	Acme mine.....	14,137	14,138	28,275	7,500	7,500	15,000
	Patterson mine.....	11,127	8,251	19,378	3,214	3,578	6,792
				47,653			21,792
Ohio.	Whitaker mine.....	5,633	5,634	11,267			
	Manchester mine.....	4,749	6,478	11,267			
	Elm Grove mine.....	31,334	31,763	66,157			
				88,691			
Preston.	Austin mine.....	4,299	18,343	22,642	803	16,632	17,435
	Mercants Coal Co.....		3,300	3,300			
	West End Coal Co.....		12,090	12,000		800	800
	Oakland C. & C. Co.....	7,654	6,789	14,443		233	238
				52,385			18,47

TABLE II.—*Continued.*

*Showing Production of Coal and Coke of Each Colliery in the First District of West Virginia, for the Year Ending June 30, 1895.*

	COUNTIES.	NAME OF COLLIERY.	COAL.			COKE.		
			First six months.	Second six months.	Total.	First six months.	Second six months.	Total.
Taylor.		Flemington Mines.....	10,408	17,237	27,645			
		Tyrconnel Mines.....	24,903	33,988	58,891	2,905	3,030	5,935
					86,536			5,935
Tucker.		Thomas Mine.....	45,189	39,766	84,955	3,988	3,324	7,310
		Thomas Shaft.....	36,120	38,212	74,332			
		Coketon (2 & 3).....	55,118	53,563	108,681	13,123	28,127	41,250
		Douglas Mine.....	30,261	18,111	48,372	10,200	12,800	23,000
					316,345			71,380
		Total of all the mines .....			2,792,943			248,433

TABLE III.

*Showing the Number of Employes in and Around Collieries in the First District of West Virginia, Character of Seam, Work, Mode of Ventilation, Number of Ovens, &c., with the Year Ending June 30th, 1895.*

NAME OF COLLIERY.	EMPLOYES.				Kind of Mines.	Mode of Ventilation.	Seam Worked.	Kind of Coal.	Thickness of Seam.	COKE OVENS.				
	Miners.	Day Laborers.	Coke Workers.	Total.						In Blast.	Out Blast.	Total.	No. months run.	
BROOKE COUNTY.														
Blanche.....	35	8		43 Drift.	Furnace	Local	Pittsburg.	Steam.	4½ ft.				10	
Gilchrist.....	27	4		31 Drift.	Furnace.	Pittsburg.	Pittsburg.	Steam.	5 ft.				12	
Wellsburg.....	15	5		20 Drift.	Furnace.	Pittsburg.	Pittsburg.	Steam.	5 ft.				9	
Cooper C. Co.....	16	10		26 Drift.	Nat.	Pittsburg.	Pittsburg.	Steam.	5 ft.				9	
HARRISON COUNTY.														
Despard Mines.....	37	13	10	61 Drift.	Furnace.	Pittsburg.	Pittsburg.	Steam.	9 ft.	18		18	10	
Mt. Clair Mines.....	10	4		14 Drift.	Nat.	Pittsburg.	Pittsburg.	Steam.	8 ft.				12	
Howard Mines.....	70	21		91 Drift.	Furnace.	Pittsburg.	Pittsburg.	Steam.	9 ft.		50	50	12	
Farnum.....	38	9	6	53 Drift.	Furnace.	Pittsburg.	Pittsburg.	Steam.	9 ft.	21	6	30	4	
Glenn Falls.....	75	14		89 Drift.	Nat.	Pittsburg.	Pittsburg.	Steam.	9 ft.				2	
Briar Hill.....	75	26	10	105 Drift.	Nat.	Pittsburg.	Pittsburg.	Gas & Steam.	8 ft.	22		22	6	
Fall Run.....	50	7		57 Drift.	Furnace.	Pittsburg.	Pittsburg.	Gas & Steam.	9 ft.				9	
Clarksburg Mine.....	42	14	5	61 Drift.	Furnace	Pittsburg.	Pittsburg.	Gas & Steam.	9 ft.	16		16	9	
MARION COUNTY														
Hutchinson.....	60	16	10	86 Slope.	Fan.	Pittsburg.	Pittsburg.	Gas & Steam.	9 ft.	26		26	12	
King Mine.....	25	8	5	38 Drift.	Steam jet.	Pittsburg.	Pittsburg.	Gas & Steam.	9 ft.	18	26	44	12	
Gaston.....	175	25	50	250 Drift.	Fan.	Pittsburg.	Pittsburg.	Gas & Steam.	9 ft.	75	15	90	12	
Pritchard.....	69	9	8	77 Drift.	Furnace	Pittsburg.	Pittsburg.	Gas & Steam.	8 ft.	12		12	12	
Aurora.....	45	14		59 Drift.	Furnace.	Pittsburg.	Pittsburg.	Gas & S. eam.	7 ft.	11			11	
Central.....	18	6	2	26 Drift.	Nat.	Pittsburg.	Pittsburg.	Gas & Steam.	8 ft.	4	6	10	9	
Clements (Not Reported)														
West Fairmont Shaft.....														
Moutana.....	125	33	12	170 Shaft	Fan.	Pittsburg.	Pittsburg.	Gas & Steam.	9 ft.	36		36	12	
Palatine.....	175	35	90	300 Drift.	Nat.	Pittsburg.	Pittsburg.	Gas & Steam.	7 ft.	158		158	10	
Palatine.....	40	16		56 Drift.										



TABLE III.—Continued.

Showing the Number of Employees in and Around Collieries in the First District of West Virginia, Character of Seam Work, Mode of Ventilation, Number of Ovens, &c., with the Year Ending June 30th, 1895.

NAME OF COLLIERY.	EMPLOYEES.				Kind of mines	Mode of Ventilation.	Seam Worked.	Kind of Coal.	Thickness of Seam.	COKE OVENS.				
	Mines.	Day Laborers.	Coke Workers.	Total.						In blast.	Out blast.	Total.	No. months run.	
MARION COUNTY.--Continued.														
Mongah.	490	110	180	780	Drift.	Fan.	Pittsburg.	Gas and steam.	9 ft.	152	169	321	12	No. months run.
New England.	40	11	13	64	Drift.	Fan.	Pittsburg.	Gas and steam.	8 ft.	45	.....	45	6	
MARSHALL COUNTY.														
Glendale	75	16	.....	91	Shaft.	Fan.	Pittsburg.	Gas and steam.	5½ ft.	.....	.....	.....	11	No. months run.
Moundsville.	90	25	.....	115	Shaft.	Fan.	Pittsburg.	Gas and steam.	5½ ft.	.....	.....	.....	9	
Boggs' Run.	30	13	.....	43	Drift.	Fan.	Pittsburg.	Gas and steam.	5½ ft.	.....	.....	.....	8	
MINERAL COUNTY.														
Windom	60	13	.....	73	Drift.	Natural.	Pittsburg.	Gas and steam.	15 ft.	.....	.....	.....	12	No. months run.
Hampshire	55	9	.....	64	Drift.	Natural.	Kilnanning.	Gas and steam.	6 ft.	.....	.....	.....	12	
Pierce	45	11	.....	56	Drift.	Natural.	Pittsburg.	Gas and steam.	14 ft.	.....	.....	.....	10	
Elk Garden.	325	69	.....	394	Drift.	Natural.	Pittsburg.	Steam.	14 ft.	.....	.....	.....	10	
Atlantic.	40	14	.....	54	Drift.	Natural.	Pittsburg.	Steam.	14 ft.	.....	.....	.....	6	
MONONGALIA COUNTY.														
Aeme	40	12	8	60	Drift.	Furnace.	Pittsburg.	Steam.	8 ft.	20	.....	20	12	No. months run.
Patterson.	40	6	8	54	Drift.	Furnace.	Pittsburg.	Steam.	9 ft.	18	.....	18	10	
OHIO COUNTY.														
Whitaker.	22	9	.....	31	Drift.	Fan.	Pittsburg.	Steam.	3 ft.	.....	.....	.....	6	No. months run.
Manchester	14	3	.....	17	Drift.	Fan.	Pittsburg.	Steam.	3 ft.	.....	.....	.....	3	
Elm Grove	70	12	.....	82	Shaft.	Fan.	Pittsburg.	Steam.	6 ft.	.....	.....	.....	12	



## Showing Location of Collieries, etc., in the First District of West Virginia.

Name of Mine	Name of Operator.	Superintendent.	Mine Boss.	County.	Post Office.
Blanche	Blanche Coal Co.	R. T. Williams	Thos. Ritson.	Brooke	Standard.
Gilchrist.	A. Gilchrist Coal Co.	A. Gilchrist.	Wm. Gilchrist.	"	Lazeaville.
Wellsburg	Forbes, Carmichael & Coal Co.	Wm. Forbes	D. G. Young	"	Wellsburg.
Cooper Coal Works.	Cooper Coal Co.	Jas. Cooper	Jas. Cooper	"	Short Creek.
Despard	Despard Gas Coal Co.	Mord Lewis	Jno. Laistetter	Harrison.	Clarksburg.
Mt. Clare	Mt. Clare Coal Co.	J. F. Healy	J. L. Healy	"	Mt. Clair.
Howard	Howard Coal & Coke Co.	Jno. Temple.	Jno. Temple	"	Clarksburg.
Farmington	Finnickinnick Coal Co.	J. S. Dixon	Martin Flaker	"	same
Glenn Falls	Glenn Falls Coal & Coke Co.	E. H. More	Ezra Wolfe	"	Farmington.
Briar Hill	Briar Hill Coal & Coke Co.	C. W. Watson	Peter Gill	"	Clarksburg.
Fall Run	Finnickinnick Coal Co.	W. Moody	W. Moody	"	same
Clarksburg Mine	Finnickinnick Coal Co.	J. L. Carroll.	W. Fleming	"	Farmington.
Hutchinson	Hutchinson Coal & Coke Co.	Thos. W. Arnett.	Jno. F. Bratt.	Marion	Clarksburg.
King.	Virginia & Pittsburg C. & C. Co.	R. M. Hite	R. M. Hite.	"	Farmington.
Gastons.	Gaston Gas Coal Co.	S. L. Watson	G. B. Brown	"	same
Pritchard	Clark Coal & Coke Co.	Thos. S. Haymond	Geo. Coburn	"	same
Aurora	Newburg Orrel Coal & Coke Co.	Chas. H. Orr.	Jno. M. Henry	"	Palatine.
Central	O. Jackson	O. Jackson	J. S. Jackson.	"	Farmington.
Clements	Pool Coal & Coke Co.	C. L. Merrifield	T. W. Malone	"	Goldale.
West Farmington	West Farmington Coal & Coke Co.	Wm. Brooks	Yank Wallace	"	Farmington.
Montana	Montana Coal & Coke Co.	J. C. Gaskill.	C. E. Ga-kill	"	same
Palatine.	Newburg Orrel Coal Co.	M. D. Orr	J. C. McKinney	"	Palatine.
Monongah	Monongah Coal & Coke Co.	A. J. Ruckman	A. E. Rogers & A. S. Barnes	"	Farmington.
Monongah No. 3	Monongah Coal & Coke Co.	A. J. Ruckman	Geo. Reppart	"	same
New England.	West Farmington Coal & Coke Co.	Wm. Brooks	Chas. Brooks	"	Glendale.
Glendale	Glendale Coal Co.	D. F. Henry	D. F. Henry	Marshall.	Noundsville.
Moundsville Shaft	Moundsville Coal Co.	Jno. O. Brooks	Jno. Brooks, Sr.	"	Wheeling.
Boggs Run	Boggs M. & M. Co.	Philip Kanitz	Ed. Miller	"	Piedmont.
Windom	Davis Coal & Coke Co.	O. Tibbets	J. B. Rankin	"	same
Hampshire	Davis Coal & Coke Co.	Jno. C. Briden.	F. H. Tibbets.	Mineral.	Elk Garden.
Elk Garden	W. Va. & Pitts. R. R. Co.	W. T. Blackiston	Fanston Wilson	"	Piedmont.
Atlantic	G. C. & C. Co.	Jno. Jose	Jno. Jose	"	Elk Garden.
Acme	Acme Coal & Coke Co.	W. G. Crawford	P. B. Robinson	Monongalia	Piedmont.
Beechwood	Patterson Coal & Coke Co.	Rob Patterson.	Jno. Wilson	"	Ope-kiska.
Whittaker	Harry Kasley	Harry Kasley	Wm. Magruder	"	Beechwood.
Manchester	Harry Kasley	Harry Kasley	Wm. Magruder	Ohio	Wheeling.
Elm Grove	Elm Grove Coal Co.	J. B. Chambers	C. A. Brooks.	"	same
Oakland.	Oakland Coal & Coke Co.	R. J. Anderson	Robt. Thompson	Preston	Elk Grove.
					Corinth.

TABLE IV.—Continued  
*Showing Location of Collieries and, etc., in the First District of West Virginia.*

Name of Mine.	Name of Operator.	Superintendent.	Mine Boss.	County.	Post Office.
Austin	Anstina Coke Works	Geo. C. Shaw	J. M. Whittaker	Preston	Austin.
West End	West End Coke Co.	J. X. Hill	L. S. Larew	"	Tunnelton.
Merchants Coal Co.	Merchants Coal Co.	A. J. Bonnafield	Geo. Cummings	"	same
Womelsdorf Coal Co.	Womelsdorf Coal Co.	Ernest V. Avondale	W. H. Davis	Randolph	Womelsdorf.
Flemington	Flemington Coal & Coke Co.	A. P. Gedecke	S. S. Walter	Taylor	Flemington.
Tyrconnell	Newburg Orrel Coal Co.	J. H. Henry	Robt. Love	"	Tyrconnell.
Douglas	Cumberland Coal & Coke Co.	J. B. Jenkins	Ed. Pili	Tucker	Copeton.
Thomas Shaft	Davis Coal & Coke Co.	Wm. Conlson	Geo. Jenkins	"	Thomas.
Copeton	Davis Coal & Coke Co.	J. C. Brydon	Geo. Nesbitt, Jr.	"	same
Thomas Drift	Davis Coal & Coke Co.	Wm. Conlson	Cal. Thompson	"	same

## TABLE V.

*Showing Coal and Coke Production, Number of Employees, Fatal and Non-Fatal Accidents from July 1, 1894, to June 30, 1895, Inclusive, in the First District of West Virginia.*

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Actual coal production, tons of 2,240 pounds .....	2,792,943
Quantity of coke produced, tons of 2,000 pounds .....	248,433
Total number of coke ovens.....	1,597

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## EMPLOYEES.

Number of inside miners.....	3,284
Number of day laborers.....	762
Number of employees connected with handling coke .....	560
Total number of men employed in and around mines.....	4,606

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## PROPORTIONS.

Number of tons of coal produced per life lost.....	128,952 Tons
Number of tons of coal produced per non-fatal accident.....	199,496 Tons
Number of tons of coal produced per miner employed yearly.....	851 Tons
Average earning per miner at 40c per ton.....	\$ 310.40
Average monthly earning per miner at 40c per ton.....	\$ 29.20

TABLE VI.  
Showing Analyses of Coal and Coke in the First District of West Virginia.

NAME OF COLLIERY.		Fixed Carbon	Volatile Matter.	Water.	Sulphur.	Ash.	Chemist
Cooper Coal Works	coal	50.69	40.44	1.10	2.82	4.55	J. S. Cary.
Whittaker	coal	48.67	41.07	0.80	2.26	4.20	same
Despard	coal	53.01	37.71	0.95	2.84	5.45	same
Clarksturg	coke	85.47	1.40	0.15	2.83	10.150	same
"	coal	54.35	39.87	1.50	0.79	4.00	Cambria Iron Works.
Mt. Clair	coke	89.22	1.35	0.20	1.43	0.73	same
Prichard	coal	72.184	19.406	1.01	0.792	4.486	Thos. Bruce.
"	coal	62.00	33.50	1.05	0.719	2.74	J. E. Paul.
Monongah.	coke	87.66	0.95	0.18	1.01	10.20	J. E. Paul.
"	coal	53.64	37.19	1.36	1.01	6.80	J. B. Britton.
Montana	coke	89.39	0.20	0.51	0.90	9.00	same
"	coal	57.957	36.00	1.512	0.931	3.60	A. S. McCreath
Clements	coke	91.85	0.43	0.42	0.48	6.82	C. E. Dwight.
"	coal	55.20	37.00	1.00	0.80	6.00	A. S. McCreath.
King	coke	87.651	0.0074	0.0043	1.169	9.985	same
"	coal	57.46	35.66	1.51	0.01	5.73	R. Harlien.
Hutchinson	coke	86.10			1.119	9.39	Isabella Furnace Co.
"	coal	58.45	37.15	1.30	0.55	3.10	J. W. Paul.
Moundsville Shaft	coke	86.85	2.35		0.89	10.80	same
Boggs Run	coal	52.30	42.10	1.60	2.13	4.00	same
Oakland.	coal	47.41	41.01	1.30	3.38	3.90	J. S. Cary.
Austin	coal	66.35	25.68	0.45	1.48	7.25	B. & O. R. R.
"	coal	58.00	38.00	1.50	0.50	1.20	P. B. Wilson.
Flemington	coke	87.98		0.45		11.57	same
"	coal	80.32	13.99	1.05	0.299	3.34	C. A. Doremus.
Coketon	coke	87.98		0.47		11.55	same
"	coal	67.18	26.84	0.80	1.68	5.18	J. C. Atlix.
Thos' Shaft	coke	90.00	1.49	0.18	0.771	7.73	same
"	coal	66.88	25.777	0.77	0.55	6.32	same
Thos Drift	coal	65.60	22.87	0.64	0.64	10.89	same
"	coke	90.00	1.16	0.15	0.70	8.64	same
Douglas.	coal	62.68	22.65	1.10		6.57	same
"	coke	87.62	1.98	0.12	0.55	10.02	same
Howard	coal	57.76	37.36	1.10	1.83	3.96	S. C. Ford.

*Showing Accidents Occurring in the Mines of the First District of West Virginia for the Year Ending June 30, 1895.*

TABLE VII.

## FATAL ACCIDENTS.

DATE.	NAME.	Age	Married or Single.	No. Orphans.	COLLIERY.	COUNTY.	NATURE OF ACCIDENT.
1894. November 20.	John Donelly	57	Married.	8	Blanche.	Brooke	Explosion from powder and dust
1894. November 20.	Antonio Stattee	30	Married		Blanche.	Brooke	Explosion from powder and dust
1894. November 20.	Maylie Giscindo	27	Married.		Blanche	Brooke	Explosion from powder and dust.
1894. November 20.	David Rowland	40	Single		Blanche	Brooke	Explosion from powder and dust
1894. November 20.	Thos. Tucker	22	Single		Blanche	Brooke	Explosion from powder and dust
1894. November 20.	Thos. Jordan	24	Single		Blanche	Brooke	Explosion from powder and dust.
1894. November 20.	Jasper Lawrence	30	Single		Blanche	Brooke	Explosion from powder and dust.
1894. November 20.	Mike Rooney	35	Single		Blanche	Brooke	Explosion from powder and dust.
1894. December 8.	John Youker	28	Married.		Blanche	Brooke	Explosion from powder and dust.
1895. June	L. J. Day	48	Married		Blanche	Brooke	Explosion from powder and dust.
1895. April	Thos. Calary	52	Single	4	Clarksburg.	Harrison	Run over by mine car. Back broken
1894. November 5.	Paul Iras.	38	Single		Elk Garden.	Mineral.	Falling slate
1895. January 9.	Jno. Hodock	16	Single		Montana	Marion	Run over by mine cars.
1894. September 14.	Hezikiah Cornell	45	Married	4	Priehard	Marion	Run over by loaded mine cars
1895. May	O. L. Birtcher.	50	Married.	3	Monongah	Marion	Explosion of powder.
1895. May	Thos. Shaver	15	Single		Monongah	Marion	Explosion of powder. Suffocation.
1895. May	Luke Vinka	34	Single		Monongah	Marion	Explosion of powder. Suffocation.
1895. May	Andrew Delaney	32	Single		Monongah	Marion	Explosion of powder. Suffocation.
1894. July	Jno. Poles	45	Single		W. Fairmont shaft	Marion	Fall of slate
1891. August	Angelo Woods		Married	1	Douglas.	Tucker	Fall of slate
1895. June	Owen McFarland		Single		Douglas.	Tucker	Fall of slate
1895. May	Jno. Gefoka.	33	Married		Monongah	Marion	Fall of slate



TABLE VII.—Continued.

## NON-FATAL ACCIDENTS.

DATE.	NAME.	COLLIERY.	COUNTY.	NATURE AND CAUSE OF ACCIDENT.
1894. November 20	Thos. Morris.	Blanche	Brooke	Slightly burned by powder explosion.
1894. November 20	Reffel Minkie.	Blanche	Brooke	Slightly burned by powder explosion.
1894. June	10 Steve Kelmie.	Larksburg	Harrison	Ankle crushed by fall of coal.
1894. August.	10 Chas. Fazenbaker.	Hampshire	Mineral	Burned on hands and face by powder.
1894. September 18	P. S. Rice.	Elk Garden	Mineral	Knee broken between cars.
1895. February	6 U. Stephens.	Austin	Preston	Right leg broken, fall of slate.
1895. June	3 Ed Whitaker.	Austin	Preston	Hand mashed between mine cars.
1895. June	4 Jno. Kelley.	Austin	Preston	Head cut by fall of slate.
1894. December 17	Wm. Nester.	Tycoon	Taylor	Two ribs broken by fall of slate.
1894. September 1	Jno. Simaston.	Tycoon	Taylor	Caught between cars, leg broken.
1894. December 29	Tony Frank.	Douglas	Tucker	Right arm broken by fall of slate.
1894. August	7 Chas. Route.	Coketon.	Tucker	Hurt between mine cars.
1894. August	9 Robt. Marsh.	Coketon.	Tucker	Hand mashed between cars.
1894. September 13	W. W. Skinner.	Thos. Shaft.	Tucker	Leg broken between cars.



REPORT  
OF  
INSPECTOR OF MINES.

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Second District of West Virginia.

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*To His Excellency, WM. A. MACCORKLE,  
Governor of West Virginia:*

SIR:—In compliance with section 4 of the Mining Law of the State of West Virginia. I have the honor of submitting my annual report for the year ending June 30th, 1895. .

The tables embraced in this report show the number of mines in operation, the average number of miners and other employees connected therewith, the number of fatal and non-fatal accidents, the number of tons of coal and coke produced, the location of collieries, their post-offices and names of the superintendents and mining bosses.

By reason of the late depression in the coal trade, I regret to report a slight decrease in the production of this district; yet the number of new operations under way show that in the near future West Virginia will be one of the leading coal producing states.

The extension of the Charleston, Clendennin & Sutton Railroad now under construction will be the output for fine coal fields in Clay county. Also the Kelley's Creek Improvement Company's railroad is the means of the development of a fine coal field on Kelley's creek.

I note with pleasure that most of the operators and mine officials show a disposition to comply with such instructions as I gave, but

there are some, however, who have not fully complied with the law and there is room for much more improvement.

I have visited all the mines in my district twice during the year.

There have been seven furnaces and one fan erected during the year. I hope by the end of the next year to report all the mines in my district in first-class condition, and a marked increase in the production of coal.

Very Respectfully,  
P. L. BRANNEN,\* *Inspector of Mines of*  
*Second District West Virginia.*

EASTBANK, W. VA.

## LOCATION OF MINES IN THE SECOND DISTRICT OF WEST VIRGINIA.

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### Mason County.

#### NEW HAVEN—(P. O., Spilman.)

This mine is located on the Ohio River Railroad and is operated by the Consumers' Coal and Mining Company. Coal is shipped by both rail and river. It is a slope mine and a stationary engine is used for hauling the coal out of the mine. The mine is ventilated by a fan and the ventilation is very good. Drainage fair. The roads were very muddy on my last visit to the mine, as they had a great deal of water to haul and the waste from the boxes caused considerable mud. Tracks good. H. L. Roush, Superintendent and Mine Boss.

#### HARTFORD—(Hartford, P. O.)

This mine is operated by the Hartford City Salt Company and is located on the Ohio River at Hartford. The ventilation is very good and drainage fair. Roads not in very good condition. The coal produced at this mine is used for the manufacture of salt. D. E. Newton, Superintendent; Richard Jenkins, Mine Boss.

#### CALIFORNIA MINE (P. O. Hartford.)

This mine is operated by Juhling Brothers & Company, and is located on the Ohio River Railroad and Ohio river, at Hartford. The coal is shipped by both river and rail. This is a slope mine and a stationary engine is used for pulling the coal from the mine. The mine is ventilated by a furnace, and the ventilation was not very good. I requested the mine boss to put up some trap doors and to take down some loose slate on main entry. Roads and drainage are not very good. — Juhling, Superintendent; Richard Trumbull, Mine Boss.

#### LIVERPOOL MINE—(P. O. Hartford.)

This mine is located on the Ohio River Railroad at Hartford, and is operated by the Liverpool Salt & Coal Company. The ven-

tilation is good and the mine generally is in a very good condition. All the coal produced at this mine is used at the furnace for the manufacture of salt. Charles Clifton, Superintendent; Harry Hart, Mine Boss.

#### MCDANIEL'S MINE—(P. O., Hartford City.)

This mine is located about one mile north of Mason City on the Ohio River Railroad and is operated by Pierce Brother's Coal Company. The mine is ventilated by a furnace and the ventilation is very good. The mine generally is in very fair condition. J. F. Pierce, Superintendent; Charles A. Pierce, Mine Boss.

#### HOPE MINE—(Mason City, P. O.)

This mine is located at Mason City, on the Ohio River Railroad and is operated by the Hope Salt and Coal Company. This mine is ventilated by a furnace and the ventilation is very good. Roads and drainage good. All the coal from this mine is used at the furnace for the manufacture of salt. Henry Williams, Mine Boss.

#### STERLING—(P. O. Clifton.)

This mine is located on the Ohio River Railroad at Clifton, and is operated by the Sterling Coal & Mfg Company. This mine has run very little during the year. I made a visit to this mine but it was not running and I did not make any inspection. E. W. Tompkins, Superintendent; Earl Henry, Mine Boss.

#### CEDAR HILL MINE—(P. O. Clifton.)

This mine is located on the Ohio River Railroad, about half a mile south of Clifton and is operated by Powell & Joseph. It is ventilated by a furnace and the ventilation is very good. Drainage and tracks good. ——— Powell, Superintendent; Joseph Joseph, Mine Boss.

#### NEW CASTLE—(P. O., Middleport, Ohio.)

This mine is located on the Ohio River Railroad about two miles north of Camden and is operated by W. E. Edwards. The mine is ventilated by a furnace. Ventilation fair and the condition of the mine is very good. This is a small operation working only a few men. W. E. Edwards; Dickey Weath, Mine Boss.

#### CAMDEN MINE—(Spilman P. O.)

This mine is located on the Ohio River on the Ohio River Railroad and is operated by the Consumers' Coal and Mining Company.

The coal is shipped by both rail and river. A mine locomotive is used for hauling the coal out of the mine. The mine is ventilated by a furnace and the ventilation is fair. The general condition of the mine is very good. H. E. Spilman, Superintendent ; W. J. B. Rollins, Mine Boss.

### Kanawha County.

#### BLACK BAND—(P. O., Spring Hill.)

This mine is operated by the Black Band Mining and Manufacturing Company, and is located on a branch railroad on Davis Creek, about fourteen miles from the Chesapeake & Ohio mainline. The seam of coal mined at this place is a black coal. The mine is ventilated by two furnaces and the ventilation is very good. I found they had a boy only ten years old attending a trap door in the mine. I called the attention of the mine boss to the law and he at once removed him. Roads and drainage very good. This company ships coal by both river and rail. A. M. Wooldredge, Superintendent ; James Noble, Mine Boss.

#### FALLING ROCK—(P. O., Jordan.)

This mine is located about eighteen miles from Charleston on a branch line of the Charleston, Clendennin & Sutton Railroad. (The branch line, however, is owned by the Falling Rock Cannel Coal Company) and is operated by the Falling Rock Cannel Coal Company. This is a new mine opened during this year. The seam worked is a cannel coal. The principal work there has been driving entries. They are now shipping coal. They have natural ventilation at present, which is very good. The general condition of the mine is very good. J. B. Weir, Superintendent ; James Arrington, Mine Boss.

#### GRAHAM MINE.—(P. O., Graham.)

This mine is located about eight miles from Charleston, on the Charleston, Clendenin & Sutton Railroad and is operated by the Charleston & Elk River Coal Company. This mine is ventilated with a furnace and the ventilation is very good. Road and drainage good. T. J. Mason, Superintendent ; W. H. Green, Mine Boss.

#### ST. MARY'S—(P. O., Graham Mines.)

This mine is located on Elk River about seven miles from Charleston, on the Charleston, Clendennin & Sutton Railroad. They were only working seven men, and it did not come under the law, but the condition of the mine as to ventilation, drainage, tracks, etc., was not very good. Joseph Pirrung, Superintendent and Mine Boss.

## CAMPBELL'S CREEK—(P. O., Malden.)

This company operates two mines, the New and the Calderwood Mine. They are located on a branch road up Campbell's Creek. Calderwood is about two miles and New Mine is about one and a-half miles from the main line of the Kanawha & Michigan Railway. The coal is shipped by both river and rail. I visited these mines twice during the year. Calderwood is an old mine, the principal work being drawing pillars. They are also using two electric machines for mining, which prove to be a success. The mine is ventilated by a furnace and the ventilation is very good. Roads and drainage also good. New Mine is also ventilated by a furnace. Ventilation fair. General condition of the mine, except the air, was good. On my second visit the air was no better. They have a very good furnace, but it is a large territory to draw the air and I did not consider it sufficient, so I requested the mine boss to put up a fan, which he said he would ask the superintendent to do. J. E. Dana, Superintendent; William B. Calderwood, Mine Boss.

## QUINCY MINE—(P. O., Malden.)

This mine is located about one-half mile east of Malden on the Kanawha & Michigan Railroad, and is operated by J. Q. Dickinson & Company. They work the Campbell's Creek seam which is a splint coal 4 feet thick. All the coal produced at this mine is used at the furnace for the manufacture of salt. This mine is in very good condition as to ventilation, tracks and drainage. It is also timbered well. William Dickinson, Superintendent; D. Howery, Mine Boss.

## WINIFREDE—(P. O., Winifrede.)

This company has three mines but all working the same seam. They are located about five miles from the Chesapeake & Ohio Railroad on a branch road of their own, standard guage and a good river tipple. I visited Number 1 mine December 20, 1894 and May 30, 1895. This opening is ventilated by a fan which gives good results. They have an electric plant and run three machines for digging which they work very successfully. On my last visit they were putting up a much larger plant. R. B. Cassady, Superintendent; G. W. Nelson, Mine Boss. Number 2 South mine is also ventilated by the same fan that ventilates the north. I visited this mine December 17, 1894 and May 31, 1895. The ventilation was very good in nearly all the mine except the third and fourth left entries which was not very good. The fan has a long distance to furnish this air. The mine is in a general good condition. The coal is hauled from this mine by means of a mine locomotive which goes in the mine about 2000 feet; they have a furnace to draw the smoke from the engine out of the mine. R. B. Cassady, Superintendent; James Youell, Mine Boss. Number 3 West Mine:



I visited this mine on December 20, 1894 and June 4, 1895. They also use locomotive in this mine about 2000 feet that hauls the coal. This mine is ventilated by a furnace and the ventilation is very good except at the head of some entries where they had two break-throughs opened. Mine boss said he would have one closed in each entry. The mine generally is in good condition. R. B. Cassady, Superintendent; James Morgan, Mine Boss.

BLACK DIAMOND—(P. O., Lewiston.)

This mine is operated by R. W. Petrie, lessee, and is located on the Kanawha & Michigan Railway, about fifteen miles east of Charleston. This is a splint coal and the seam is about four feet thick. The coal is shipped by both river and rail. The ventilation in the mine is natural. On my first visit November 22, 1894, I found the ventilation very good, except in the head of the main entry, which was not very good—but it was very near through the mountain. On my second visit April 23, 1895, the main entry had been driven through the mountain and the ventilation was good. Roads and drainage good. The entries were clean; no loose slate along the roads and every thing in good condition. Z. I. Krieger, Superintendent; A. P. Shearer, Mine Boss.

PEERLESS—(P. O., Peerless.)

This mine is located on the Chesapeake & Ohio Railroad, about four miles west of Coalburgh. It is a thirty-inch gas seam. This mine is ventilated by a fan, which is a very good one. It will furnish sufficient air for the mine, but I found on my first visit August 29, 1894, that they had been very careless in putting in stoppings, and allowed a great deal of air to waste before it reached the men at the head of the workings. I requested the boss to repair the stoppings and do all the necessary work to put the mine in good condition, which he agreed to do: second visit April 24, 1895. Ventilation very good. Mine in fair condition as to roads and drainage. W. B. Stevens, Superintendent; Joseph Coleman, Mine Boss.

ACME MINE—(P. O., Acme.)

This mine is owned and operated by the Stevens Coal Company, and is located on a branch road of the Chesapeake & Ohio about 14 miles up Cabin creek. It is the Coalburgh seam, 4 feet 4 inches thick. This mine is ventilated from natural causes. On my first visit, October 22, 1894, I found the ventilation not very good. The boss was having some break-throughs driven and putting up some trap doors which will help the air a great deal. Second visit May 10, 1895: The ventilation was some better but not yet up to what the law requires. I requested the mine boss and superintendent to put up a fan or furnace, which they will do, as this com-

pany is very prompt in trying to comply strictly to the law. The company has an electric plant which runs four machines to mine coal with, and they work very successfully. The mine is in general good condition. E. F. Stevens, Superintendent; John Shearer, Mine Boss.

#### KEYSTONE MINE—(P. O., Acme.)

This mine is owned and operated by Stevens Coal Company, and is located one-half mile west of Acme on the same road. It is a soft gas coal, seam five feet thick. I visited this mine October 24, 1894. It is ventilated by a fan which produces about 19,000 cubic feet of air but owing to some leaks in stoppings, a good deal is wasted. The boss said he would have the leaks repaired. Second visit: The ventilation good. I found some of the miners using kerosene oil. I requested the boss not to allow any one to use such oil in the bank. The roads, drainage and mine generally is in good condition. E. F. Stevens, Superintendent; John S. Holmes, Mine Boss.

#### COALBURG COLLIERY COMPANY—(P. O., Ronda.)

This mine is located on Cabin Creek, on a branch line of the Chesapeake & Ohio Railroad, about four miles from the main line. The seam worked is the Coalburg seam and is about six feet thick at this place. It is a splint coal. My first visit to the mine was on November 21, 1894. This is a new mine, only been running about five months. The ventilation natural, and not very good, but they were driving some cross entries, and as soon as they connect them which will be only about ten days—the air will be good. Second visit April 25, 1895. They had made their connection with cross-entries and air course. Ventilation good. They have ninety feet to drive to where they will sink a shaft and build a furnace. This is bad roof but well timbered. Roads and drainage good. S. H. Montgomery, Superintendent; William Thompson, Mine Boss.

#### COALBURG—(P. O., Coalburg.)

This mine is on the Chesapeake & Ohio Railroad at Coalburg. The coal is shipped by both rail and river, having two good tipples. Their seam of coal is four feet thick and of a good quality. Number 3, or old opening, I visited August 20, 1894. The ventilation is natural but very good. The principal work in this mine is drawing pillars. Drainage and roads are very good. Number 1, or new opening: this mine's main entries are through the mountain, and ventilation is natural; on my first visit, August 20, 1894, I found the ventilation not very good, owing to some leaks in some of the trap doors, which the boss said he would have fixed. On my second visit, March 2, 1895, the ventilation was bad. The boss said the mine had not been running much, and that it had been so



cold he could not do some work that was necessary to be done at the mouth of entry back of the mountain, where there was water and everything was frozen up. In April I visited this mine again and requested the boss to put up a furnace which he said he would do at once. Arthur Robinson, Superintendent; James Macleery, Mine Boss.

PEABODY—(P. O., Shrewsbury.)

This mine is located on the Kanawha & Michigan Railroad on the north side of the Kanawha River, opposite Coalburg. They have six feet of clean splint coal. I visited this mine November 22, 1894. They have an entry driven through the mountain and the ventilation is natural and very good. On my second visit April 20, 1895, there were only a few men in the mine. The coal is shipped by both rail and river. The mine is in very good condition generally. J. A. Carter, Superintendent; J. J. Neylon, Mine Boss.

MONARCH—(P. O., Monarch.)

This mine is located on the Kanawha & Michigan Railway, about one and a half miles west of Cedar Grove. They are working two seams—the Coalburg and No. 5, Coalburg seam. I visited this mine December 18, 1894. It is ventilated by natural causes and the ventilation is very good. There were only a few men working in it. On my second visit April 20, 1895, they had opened two new entries about four hundred yards east of the old entries, and the ventilation was not very good. I requested the mine boss and superintendent to build a furnace, which they said they would do. I visited the No. 5 seam on December 20, 1894, and April 20, 1895. This mine is ventilated from natural causes. They have an entry driven through the mountain and the ventilation was very good, except a few places that were between two faults. This seam is very faulty. Some places the rock having cut the coal entirely out. The coal is shipped by both rail and river. Roads and drainage very good. J. D. Harris, Sup't; Charles Armstrong, M. B.

EASTBANK COAL & COKE CO.—(P. O., Eastbank.)

This mine is located on the Chesapeake & Ohio Railroad at Eastbank. It is the Cedar Grove Seam, three feet clean coal. I visited this mine October 22, 1894. The mine is ventilated by a furnace. They were only working a few men and the ventilation was sufficient. On my second visit, April 18, 1895, I found the ventilation not good. Three of the stoppings had rotted down and the holes in the trap doors allowed all the air to waste before it reached the men in their working places. I notified the boss to put up some new stoppings and trap doors, and drive a break-through at the head of third and fourth right cross entries, which he said he

would do. J. W. Wilson, Superintendent; A. T. Hudnall, Mine Boss.

CEDAR GROVE MINING CO.—(P. O. Cedar Grove.)

This mine is located on the Kanawha & Michigan Railroad and Kanawha river, at Cedar Grove. It is a gas seam below the level of the railroad. This is a slope mine and they use a stationary engine to pull the coal out of the mine. They only had one slope to a river tippie until this summer, when they opened up a new slope about five hundred yards east of the old one, and built a fine railroad tippie. They are now able to ship coal by both river and rail. This mine is ventilated by a fan and on my first visit, August 10, 1894, I found the ventilation very good. Roads and drainage also good. On my second visit, April 15, 1895, I found the ventilation good except on the third and fourth right cross entries. They had no trappers to keep the door closed, and there were two break-throughs open which cut air off from the head of the entries. I notified the boss to stop up one of the break-throughs, also to put on trappers and keep the doors closed, which he said he would do. The seam is 3 ft. 8 in thick. H. P. Helwig, Sup't; T. B. Slusser, M. B.

CEDAR GROVE MINING COMPANY.

This mine is located at Cedar Grove and operated by the same company that operates the gas seam. It is three feet thick clean coal. It is ventilated by a fan and the ventilation is very good. Road and drainage also good. H. P. Helwig, Superintendent; Clark Hudnall, Mine Boss.

BIG MOUNTAIN.—(P. O., Cedar Grove.)

This mine is located on Kelley's Creek about one mile from the main line of the Kanawha & Michigan Railway, on a branch road owned by the company. It is operated by the Big Mountain Mining Co. They are operating two seams—the Coalburg and Cedar Grove. Coalburg seam on my first visit November 28, 1894, I found that this was a new mine just opened up during the year and only been running about two months. Ventilation natural and very good. On my second visit April 19, 1895, I found that they had built a furnace since my last visit and the ventilation was good. The coal is four and a half feet thick. Roads and drainage good. Cedar Grove seam.—I visited this mine, first visit, November 28, 1894. This is also a new mine, only been running about two months. Ventilation natural but very good. On my second visit April 19, 1895, I found they had a good many men in the mine, and the ventilation was not as good as on my first visit. I requested the mine boss and superintendent to put up a fan, which they promised to do, and within one month from the time I requested it, it was

put up. This company is very prompt in complying to the law and try to keep their mine in good condition. The Cedar Grove seam is three feet thick clean coal of the best quality. S. A. Alexander Superintendent; J. S. Miller, Mine Boss.

MAMMOTH—(P. O. Mammoth).

This mine is located on the Kelley's Creek Improvement Company's Railroad, about four and one-half miles from the Kanawha & Michigan main line, connecting at Cedar Grove. This company opened up the Coalburg seam, and had made a great deal of improvement and had their tipple nearly completed when one of the company, Mr. T. L. Montgomery, died. The company has done nothing since. John Straughan, Superintendent.

STAUNTON—(P. O. Mammoth).

This mine is located on Kelley's creek, on the Kelley's Creek Improvement Company's Railroad, about five miles from the main line of the Kanawha & Michigan, and is operated by the Staunton Coal Company. This is a new mine, having been opened up in the last six months. On my first visit to this mine, they had made a great many improvements and had commenced to ship coal. The mine is well opened up and has a good furnace. Ventilation good. Roads and drainage also in good condition. This company is working the Lewiston seam, which is good coal. They are opening Coalburg seam also. M. Beane, Superintendent and Mine Boss.

THE THOMAS SCHOLZ COAL COMPANY—(P. O., Mammoth.)

This mine is located  $5\frac{3}{4}$  miles from the K. & M. main line on the K. C. I. Co. R. R., connecting with the K. & M. at Cedar Grove. On my visit to this mine I found it had been opened in the last six months and had shipped no coal yet, but was nearly ready to commence shipping. They had a fine tipple just completed and all of their machinery in. They are operating the Coalburg seam which is 5 feet 10 inches thick at this point, and a first class quality of coal. The mine has been opened up in good shape. They were driving double entries and the ventilation was natural, but they will build a furnace as soon as needed.

C. Scholz, Superintendent; D. L. Ralinson, mine boss.

KELLEY'S CREEK COAL COMPANY—(P. O., Mammoth.)

This mine is located on Kelley's Creek, on the K. C. I. Co. R. R., about 6 miles from the K. & M. main line. At the time of my visit this mine had been opened in the last six months. They were not yet ready to ship coal, but were making extensive operations. They are operating the Lewiston seam. This is a very fine coal. A. C. Findley, Superintendent; James Morris, Mine Boss.

## BLACK CAT—(P. O., Crown Hill.)

This operation is located one-fourth mile west of Belmont, and is operated by Ballard & Welch Coal Co. They are operating the Coalburgh and Lewiston seams, and ship coal by both rail and river. Lewiston Seam, No. 1—First visit August 8, 1894. Ventilation very good except in the head of the main entries. There were three break throughs open which cut the current of air off from the headings. 2d. opening, which is east of No. 1, has no furnace stack, and the ventilation is not very good. I requested the mine boss to fix the furnace and put up stoppings in entry No. 1. Coalburgh Seam Ventilation not very good. I requested the boss to build a furnace or put up a fan. On my second visit the Company had made an assignment and has run none since George Welch, Superintendent; Thomas Burke, Mine Boss.

## BELMONT.—(P. O., Crown Hill.)

This mine is located on the C. & O. Ry., about 3 miles west of Handley, and is operated by the Belmont Coal Co. They are working two seams, the Lewiston and Coalburgh. The Lewiston seam is 4 feet and the Coalburgh 5 feet thick. Coal is shipped by both river and rail. The ventilation in the Lewiston seam is natural. They have an entry driven through the mountain and the ventilation is sufficient. Drainage and roads, very good. Coalburgh seam, on my first visit August 9, 1894; the ventilation was bad, I requested the mine boss to put up a fan or a large furnace. On my second visit December 10, 1894, they had not complied with my request, but was driving an entry through the mountain. I informed the boss that I would wait until they got their entry through the mountain and see what effect it would have on the ventilation. On my third visit April 22, 1895, the entry was through the mountain and the ventilation was much better; but they had no fire in the furnace and had not put up some trap doors that were needed. I requested the boss to keep a fire in the furnace and put up the doors and fix his stoppings, all which he promised to do. J. C. Morrison and T. E. Embleton, Superintendents, P. H. Embleton, Mine Boss.

## RIVERSIDE—(P. O. Riverside.)

This mine is on the K. & M. Railway, about 2 miles east of Cedar Grove, and is operated by the Riverside Coal Co. They are operating the Cedar Grove seam, 3 feet thick. It is ventilated by a furnace, but the ventilation was not very good. I told the boss to have break throughs driven, fix up some stoppings and have two trap doors put up, which he promised to have done. Roads and drainage very good. On my second visit the ventilation was not good. They had not complied with all the requests that I had made, and one trap door that they had put up had been knocked

down, and not put back in its place. Mine boss said he would put it back in place and fix up the rest of his doors and stoppings at once. Geo. Straughan, Sup't; E. F. Straughan, M. B.

CROWN HILL—(P. O., Crown Hill.)

This mine is located on the Chesapeake & Ohio Railroad, about three-quarters of a mile west of Paint Creek, and was operated by the New York and West Virginia Coal and Iron Company. They work three seams—the Lewiston, Coalburg and Kanawha—and ship coal by both rail and river. Have not run any this year. Brewer Smith, Superintendent; John Nugen, Mine Boss.

CHESAPEAKE—(P. O., Handley.)

This mine is located on Lower Creek about one mile from main line of the C. & O. Railway. They have a narrow gauge railroad from the mine and haul the coal with a small locomotive. They have both railroad and river tipples and is one of the largest mines in my district. The mine is ventilated by a fan and the ventilation is very good in nearly all the mine. In some entries at the head it was close, as the drive was too far between break-throughs. Roads and drainage very good. J. B. Lewis, Superintendent; Alexander Thompson, Mine Boss.

CONSOLIDATED—(P. O., Montgomery.)

This mine is located about one mile east of Handley and is operated by Consolidated Mining Company. It is on the C. & O. R'y and Kanawha river and operates 3 seams, Coalburg, Kanawha and Winifrede. The ventilation is natural in all but one opening in the Coalburg seam, which has a furnace. The ventilation was only fair, not as good as it should be. Drainage and roads fair. Chas. Trudgen, Superintendent; Edward Pinking, mine boss.

UNION MINES—(P. O., Montgomery.)

This mine is on the C. & O. R'y about one mile west of Montgomery and is operated by the Union Coal Company. They are operating two seams, the Coalburg Splint & Coal Valley Gas. The Coalburg seam is ventilated from natural causes which was fair. Roads and drainage very good. Gas Seam—Ventilation not very good. Roads and drainage not very good. I requested the boss to clean up the roads, take down some loose slate and have the trap doors repaired and keep them closed, all of which he promised to do. Chas. Trudgen, Superintendent; John Allen, mine boss.

CANNELTON COAL CO.—(P. O., Cannelton.)

This operation is on a short line about five miles up Smither's



creek from the K. & M. Ry. It is a Cannel coal seam, average thickness 3 feet, and is a good quality of Cannel coal. I visited this mine twice during the year, but it was not running and I did not go inside the mine. They only run five months during the year. This and the gas seam belong to the same company. They have a river tippie and can ship by either rail or water. Henry Davis, Superintendent; Robert Taylor, Mine Boss.

CANNELTON COAL CO. — (P. O. Cannelton.)

This mine is on a short line R. R. up Smither's creek, about one mile from the main line of the K. & M., and is operated by the Cannelton Coal Co. It is a gas seam 7 ft. thick. They have 50 coke ovens now in operation. I visited this mine twice during the year. On my first visit I found the ventilation not very good, as the furnace was too small. I called the attention of the mine boss, also the superintendent, to it, and they informed me that they intended building a larger one at once. On my second visit they had the new furnace almost completed. It is a good one, and will furnish good ventilation. Roads and drainage good. Henry Davis, Sup't; Robt. Taylor, M. B.

# MINE STATISTICS.

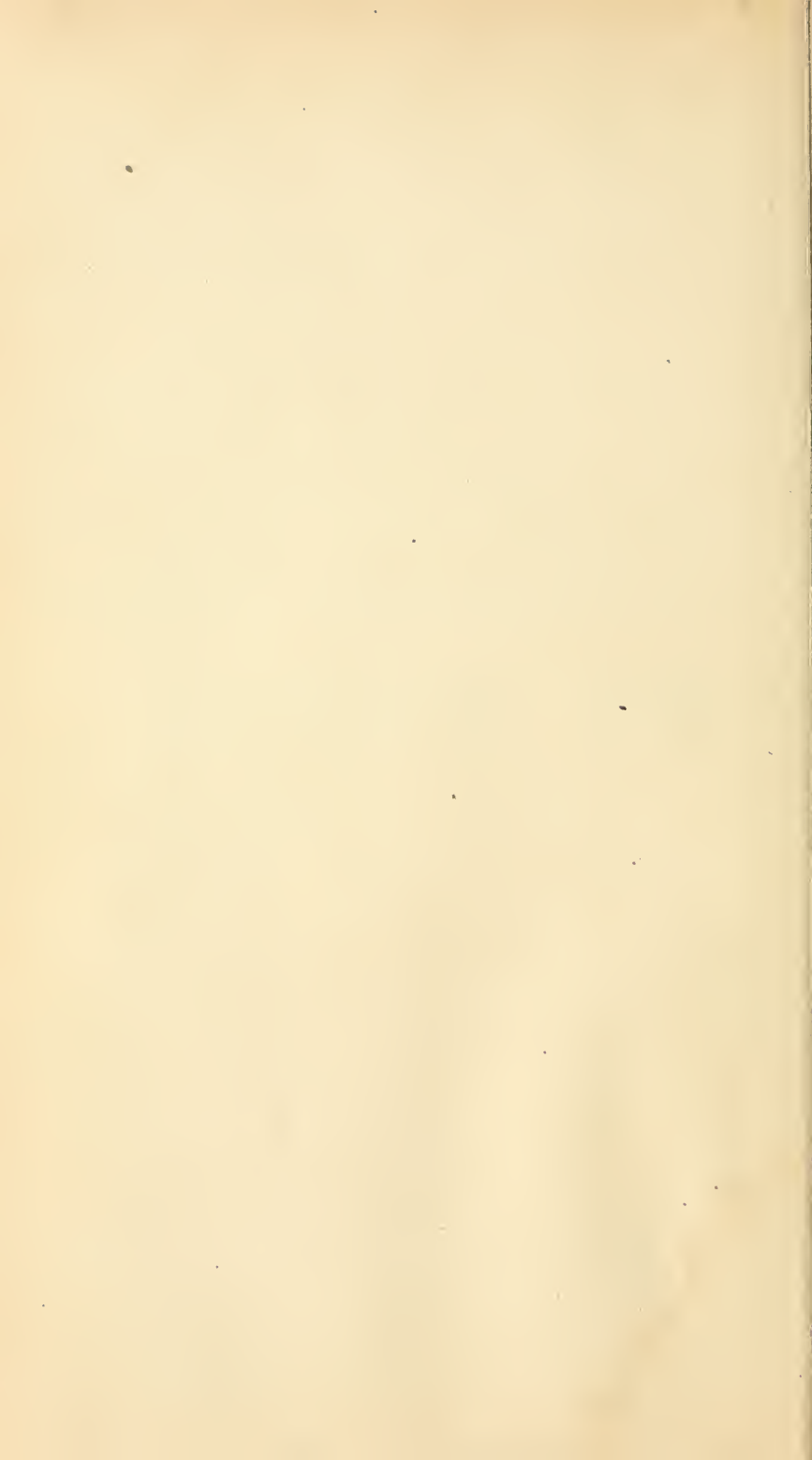




TABLE A.

*Showing Fatal Accidents in the Second District of W. Va., for the Year Ending June 30, 1895.*

NAME.	WHERE KILLED	DATE OF ACCIDENT.	OCCUPATION.	HOW KILLED.
Wm. Roush	New Haven	October 26, 1894	Miner	Fall of slate.
Henry Watson, (col)	Campbe Is Creek	May 13, 1895	Miner	Fall of slate
Thos. B. Collins	Coalburg Colliery Co	February 22, 1895	Mine Boss	Thrown from cars on crestle.
Martin Bragg	Belmont	May 10, 1895	Driver	Cars running over him.
Alonzo Enbanks	Riverside	April 26, 1895	Miner	Fall of kettle bottom.
Monroe Smith, (col)	Consolidated	November 2, 1894	Miner	Car on incline.

TABLE B.

*Showing Non-Fatal Accidents in the Second District of West Virginia for the Year Ending June 30, 1895.*

Name.	Where Accident Occurred	Date.	Occupation.	Nature of Injury.	How Injured.
Richard Burks	New Haven	March 14, 1895	Miner	Slight	Fall of slate.
Eccril Booth	Camden	December 19, 1894	Driver	Injured about face	Fall of slate.
John Woods (col)	Campbell's Creek	May 13, 1895			Fall of slate.
John Kinson	Campbell's Creek	May 6, 1895			Fall of slate.
Wm. D. Leftwich	Campbell's Creek	June 27, 1895			Fall of slate.
W. O. Blackburn	Campbell's Creek	May 30, 1895			Fall of slate.
Geo. Williams	Winifrede	February 11, 1895	Day laborer	Broken ankles	Fell from North Tipple.
Jefferson Farley	Stevens Coal Co.	August 4, 1891	Driver	Ankle & thigh brk	
J. F. Smith.	Stevens Coal Co	June 14, 1895	Miner	same	Fall of slate.
Will Scrugg	Cedar Grove	August 1, 1894	Miner	Seriously injured	Fall of slate.
Geo. Hicks	Big Mountain	June 14, 1895	Miner	Back injured	Fall of slate.
Henry Ball	Belmont	October 20, 1891	Miner	Hurt in breast	Fall of slate.
Robert Franklin (col)	Chesapeake	January 22, 1895	Miner	Pretty bad	Burred by powder.

TABLE C.

*Showing Location of Collieries in the Second District of West Virginia.*

Name of Colliery.	Name of Operator.	Name of Superintendent.	Location—County.	P. O. Address.
New Haven	Consumers Coal and Mining Co.	H. L. Roush,	Mason Co.	Spilman,
Hartford	Hartford City Salt Co.	D. E. Newton	same	Hartford,
California	Juhling Coal Co.	O. Juhling	same	same
Liverpool	Liverpool Salt and Coal Co.	Chas. Clifton	same	same
McDaniels	Pierce Bro's Coal Co.	J. F. Pierce	same	same
Hope	Hope Salt and Coal Co.		same	Mason City,
Sterling	Sterling Coal and Manufacturing Co.	E. W. Tomkins	same	Clifton,
New Castle	Joseph & Powell	W. E. Edwards	same	Middleport, O.,
Cedar Hill	Consumers Coal and Mining Co.	H. E. Spilman	same	Clifton, W. Va.
Camden	Black Band Mining and Mfg Co.	A. M. Wooldredge	same	Spilman,
Sunny Side	Falling Rock Cannel Coal Co.	J. B. Weir	same	Spring Hill,
Falling Rock		T. J. Mason	same	Jordan,
Graham		J. Pirrung	same	Graham Mines,
St. Mary's	St. Mary's Coal Co.	J. E. Dana	same	Malden,
New & Calderwood	Campbell's Creek Coal Co.	Wm. Dickinson	same	same
Quincy	J. Q. Dickinson & Co.	R. B. Cassidy	same	Winifrede,
Winifrede, Nos 1, 2, and 3	Winifrede Coal Co.	Z. T. Krieger	same	Lewiston,
Black Diamond	R. W. Petre, Lessee	W. B. Stevens	same	Pe rless,
Peerless	The Peerless Coal Co.	E. F. Stevens	same	Coalburg, W. Va.
Acme	Stevens Coal Co.	same	same	same
Keystone	same	same	same	same
Coalburg Colliery Co.	Coalburg Colliery Co.	S. H. Montgomery	same	Ronda,
Coalburg	The Robinson Coal Co.	Arthur Robinson	same	Coalburg,
Peabody	Peabody Coal Co.	J. A. Carter	same	Shrewsbury
Monarch	Monarch Coal Co.	J. D. Harris	same	Monarch,
Chestnut Point	Eastbank C & C. Co.	J. W. Wilson	same	Eastbank,
Cedar Grove, No. 1	Cedar Grove Mining Co.	H. P. Helwig	same	Cedar Grove,
Cedar Grove, No. 2	same	same	same	same
Big Mountain	Big Mountain Mining Co.	S. A. Alexander	same	same
Mammoth	Vannouth Coal Co.	Jno. Straughan	same	same
Staunton	Staunton Coal Co.	M. Beane	same	Mammoth,
Thomas & Scholz	Thomas & Scholz Coal Co.	C. Scholz	same	same
Kelley's Creek	Kelley's Creek Coal Co.	A. C. Findley	same	same
Black Cat	Ballard & Welch	G. L. Welch	same	same
Belmont	Belmont Coal Co.	Morrison & Embleton	same	Crown Hill,
Riverside	Riverside Coal Co.	Geo. Straughan	same	same
Crown Hill	The Crown Hill Colliery Co.	Robt Mauchline	same	Riverside,
				Crown Hill,

## Showing Location of Collieries in the Second District of West Virginia.

Name of Colliery.	Name of Operator.	Name of Superintendent.	Location—County.	P. O. Address.
Chesapeake Consolidated.	Chesapeake Mining Co.	J. B. Lewis	Kanawha Co	Handley.
Union Mines No. 2.	Consolidated Mining Co.	Chas. Trudgen	same	Montgomery.
No. 2 Gas.	Union Coal Co.	same	same	same
Cannel	Cannelton Coal Co.	Henry Davis	same	Cannelton.
	same	same	same	same

TABLE D.

*Showing Number of Employees, &c., of Collieries in the Second District of West Virginia.*

NAME OF COLLIERY	Number of Em- ployees.			Kind of Mine.	Mode of Ventila- tion.	COAL.			Thickne. s.	Kind.	No. of Coke Ovens.	
	Inside Mine	Outside Mine	At Coke Ovens			Total.	Seam Worked.	Ft.				In.
New Haven.	99	14	113	Slope	Fan.	Pittsburg	4	6	Bituminous			
Hartford	23	6	29	Slope	Furnace	Pittsburg	4	4	Bituminous			
California.	70	8	78	Slope	Furnace	Pittsburg	4	4	Bituminous			
Liverpool	19	2	21	Drift	Furnace	Pittsburg	4	6	Bituminous			
McDaniels	21	2	23	Drift	Furnace	Pittsburg	5	5	Bituminous			
Hope	20	3	23	Drift	Furnace	Pittsburg	4	6	Bituminous			
Sterling	34	6	40	Drift	Furnace	Pittsburg	5	5	Bituminous			
New Castle	29	2	31	Drift	Furnace	Pittsburg	4	4	Bituminous			
Cedar Hill	15	2	17	Drift	Furnace	Pittsburg	4	4	Bituminous			
Camden	89	8	97	Drift	Furnace	Pittsburg	4	4	Bituminous			
Sunnyside	170	15	185	Drift	Furnace	Black Band Block	0	34	Block			
Falling Rock	20	6	26	Drift	Natural	Cannel Coal	2	2	Cannel			
Graham	33	2	35	Drift	Furnace	Graham	3	3	Bituminous			
St. Mary's	15		15	Drift	Furnace	Graham	3	3	Bituminous			
New Mine	139	36	175	Drift	Furnace	Campbell's Creek	3 to 5	5	Semi-Cannel			
Calderwood	132	36	168	Drift	Furnace	Campbell's Creek	3 to 5	5	Semi-Cannel			
Quincy	18	2	20	Drift	Furnace	Campbell's Creek	4	4	Splint			
Winfrede No. 1	390	60	450	Drift	Furnace	Winfrede	5	5	Bituminous			
Winfrede No. 2				Drift	Furnace	Winfrede	5	5	Bituminous			
Winfrede No. 3				Drift	Furnace	Winfrede	5	5	Bituminous			
Black Diamond	49	14	63	Drift	Fan	Winfrede	3	3	Bituminous			
Peerless	73	8	81	Drift	Natural	Lewiston	2	2	Splint			
Acme	96	16	112	Drift	Fan	Peerless	4	4	Gas			
Keystone	87	16	103	Drift	Natural	Coalburg	5	5	Hard Splint			
Coalburg Colliery Co	82	10	92	Drift	Fan	Peerless	4	4	Soft Gas			
Coalburg No. 1	121	17	138	Drift	Furnace	Coalburg	6	6	Splint			
Coalburg No. 2				Drift	Natural	Lewiston	4	4	Splint			
Peabody	70	15	85	Drift	Natural	Coalburg	5	5	Splint			
Monarch No. 1	69	10	79	Drift	Natural	Coalburg	6	6	Splint			
Monarch No. 2				Drift	Natural	No. 5	4	4	Splint			
Chestnut Point	20	2	22	Drift	Natural	No. 5	5	5	Splint			
Cedar Grove No. 1	37	4	41	Drift	Furnace	Cedar Grove	3	3	Gas			

TABLE D.—Continued.

*Showing Number of Employees, &c., of Collieries in the Second District of West Virginia.*

NAME OF COLLIERY.	Number of Em- ployees.			Kind of mine.	Mode of ventilation.	Seam Worked.	Thickness.	Kind	Number of coke ovens.
	Number of Em- ployees.								
	Inside mine.	Outside mine.	At coke ovens						
Cedar Grove, No. 2	70	4	74	Slope	Fan	Tunnel Gas	3	Gas	
Big Mountain, No. 1	56	7	63	Drift	Fan	edar Grove	3	Gas	
Big Mountain, No. 2	8	2	10	Drift	Furnace	Coalburg	4	Splint	
Mammoth	22	3	25	Drift	Natural	Coalburg	5	Splint	
Staunton	30	3	33	Drift	Furnace	Lewiston	5	Splint	
Thomas & Scholz	30	2	32	Drift	Furnace	Coalburg	5	Splint	
Kelleys Creek	60	5	70	Drift	Furnace	Lewiston	4	Splint	
Black Cat, No. 1	125	18	143	Drift	Furnace	Coalburg	5	Splint	
Black Cat, No. 2	41	3	47	Drift	Furnace	Coalburg	4	Splint	
Belmont, No. 1				Drift	Furnace	Lewiston	3	Gas	
Belmont, No. 2				Drift	Furnace	Cedar Grove	4	Splint	
Riverside				Drift	Furnace	Lewiston	5	Splint	
Crown Hill, No. 1				Drift	Furnace	Cedar Grove	3	Gas	
Crown Hill, No. 2				Drift	Furnace	Lewiston	4	Splint	
Crown Hill, No. 3				Drift	Furnace	Coalburg	5	Splint	
Chesaapeake	260	15	275	Drift	Natural	Coalburg	4	Splint	
Consolidated, No. 1	80	15	96	Drift	Fan	Kanawha	6	Splint	
Consolidated, No. 2				Drift	Furnace	Coalburg	5	Splint	
Union Mines, No. 1	53	6	59	Drift	Natural	Kanawha	4	Splint	
Union Mines, No. 2	92	15	107	Drift	Furnace	Coal Valley Gas	6	Gas	
No. 2, Gas	41	15	56	Drift	Furnace	Coalburg	5	Gas	
Cannel				Drift	Natural	No. 2 Gas	7	Gas	
				Drift	Natural	Cannel	6	Cannel	

TABLE E.

*Analyses of Coal Mined from the Different Seams in the Second District of West Virginia.*

NAME OF SEAM.	Fixed Carbon.	Volatile Matter.	Water.	Sulphur.	Ash.	Name of Operator.
Aeeme .....	55.56	59.23	1.80	0.71	3.41	Stevens Coal Co. ....
Black Band .....	57.48	38.58	2.24	.....	1.70	Black Band C. & I. Co. ....
Blacksburg .....	56.75	41.17	1.23	.....	.85	Cedar Grove M. Co. ....
Cedar Grove .....	61.27	36.83	0.00	0.00	1.90	Cedar Grove Mg. Co. ....
Coalburg .....	62.90	32.50	4.00	.....	1.50	Robinson C. Co. ....
Crown Hill .....	62.61	33.26	2.14	.18	1.81	.....
Coal Valley Gas .....	61.75	34.91	0.94	.16	2.40	Mt. Carlton Co., Ltd. ....
New River .....	74.04	23.20	.83	.50	1.43	All New River Co's. ....
Pocahontas .....	74.26	18.81	1.01	.72	5.19	Mercer and McDowell Co's. ....

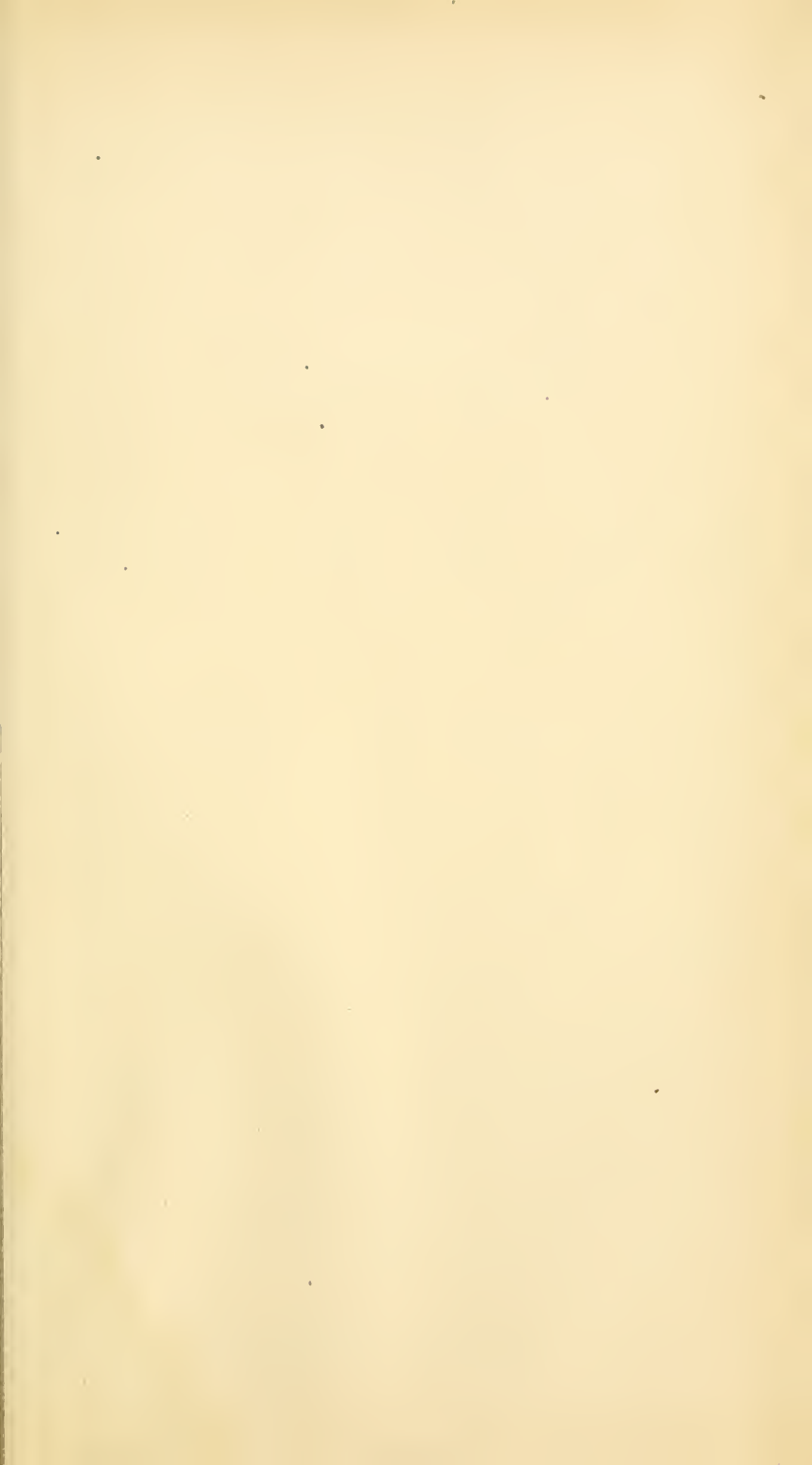
*Analyses of Coke Made of West Virginia Coal, Compared With That of Other Coking Districts.*

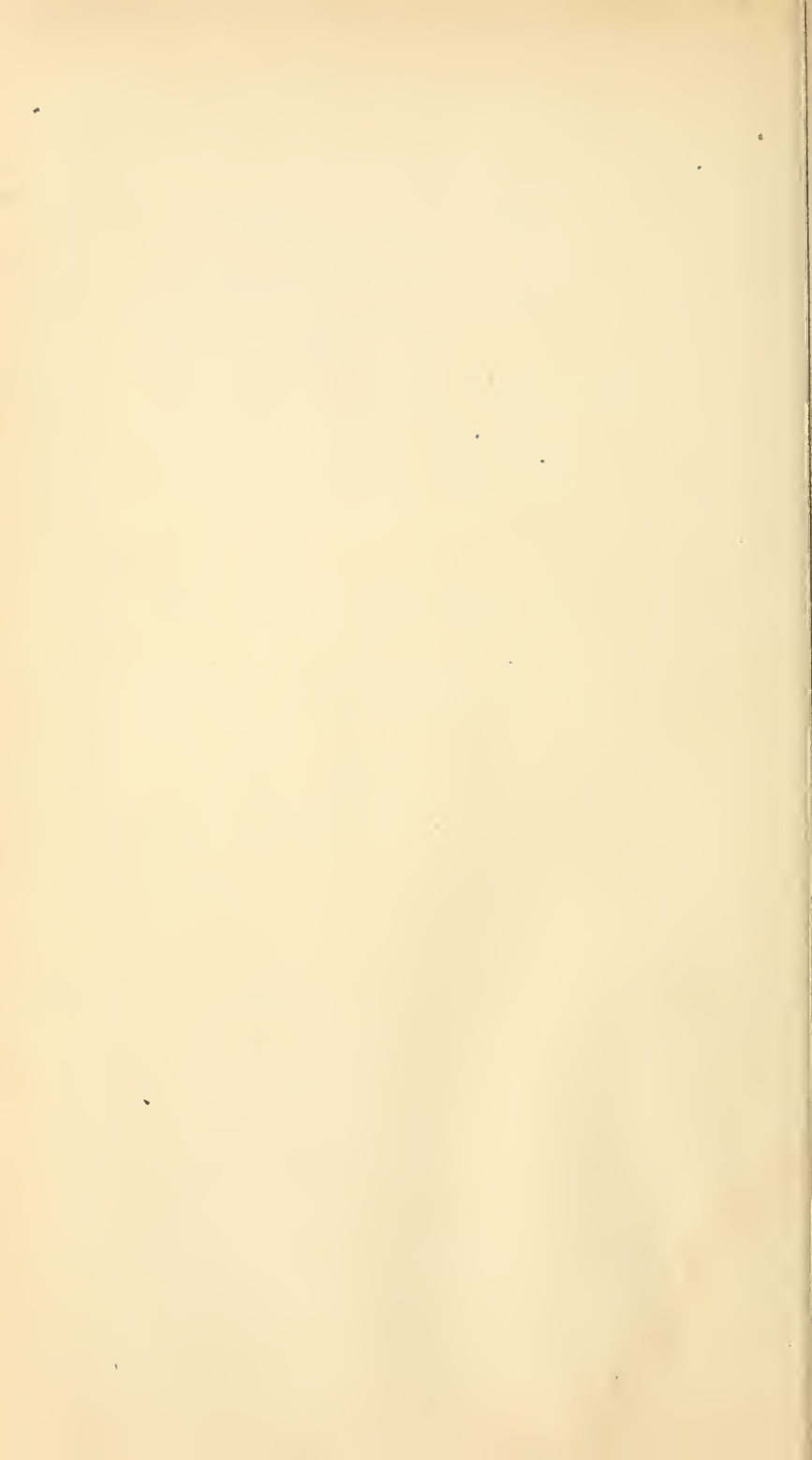
NAME OF DISTRICT.	Fixed Carbon.	Volatile Matter.	Water.	Sulphur.	Ash.
Chattanooga .....	80.513	1.101	0.447	1.595	16.344
Birmingham .....	87.299	0.803	0.157	1.195	10.545
Connellsville .....	88.962	0.425	0.060	.810	9.740
New River .....	92.608	0.214	0.500	.500	6.188
Pocahontas .....	92.550	0.757	0.347	.597	5.749

TABLE F.

*Showing Production of Coal and Coke by Counties.*

COUNTIES.	From July 1, 1894, to June 30, 1895.		No. of Mines.		No. of Coke Ovens.		Number of Employees.			
	Tons coal, 2,240 lbs.	Tons coke, 2,000 lbs.	Open.	Opening.	Complete.	Under construction.	Mines.	Inside laborers.	Outside laborers.	Making coke.
Mason .....	171,074	.....	10	.....	.....	.....	362	62	50	471
Kanawha .....	1,078,253	4,928	44	.....	62	.....	2,093	463	388	2,982







REPORT  
OF  
INSPECTOR OF MINES,

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Third District of West Virginia.

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OFFICE OF MINE INSPECTOR,  
*Third District West Virginia,* }

*To His Excellency, WM. A. MACCORKLE,*  
*Governor of State of West Virginia.*

SIR: In compliance with the requirements of section four of the mining law of the State of West Virginia, relative to the proper ventilation, working, drainage and safety of Collieries and the reporting thereon of the Mine Inspectors of the several districts to your Excellency, I have the honor of submitting to you this, my report for the year ending June 30th, 1895, together with such further data of general interest as I deem it proper to set forth. Coupled with the general condition of the mines, I have noted the different thicknesses of the coal, (with partings) taken from actual measurements.

According to the best and most reliable information, I have been able to secure, the total output in this district from June 30th, 1894 to June 30th, 1895, was 5,831,829 tons of coal of 2240

lbs. 951,296 tons of coke of 2000 lbs., which show an increase over previous year of 354,973 tons of coal, and of coke 92,740 tons, employing in the mining of the same 12,827 men; a distribution of which totals may be noted by reference to a concise table appended to this report.

During the period of my inspectorship the district has been much developed by the opening of seventeen mines, and the construction of branch lines up several tributary streams; most notably, Keeney's Creek, up which we find a nine mile extension, built by the Chesapeake and Ohio Railroad, in connection with Mr. Jno. Nuttall, to develop the latter's 25,000 acres of valuable coal deposits, and where we now find five companies operating in the Sewell or Nuttallburg seam of coal of 51 inches: also we have the extension of the C. & O. R. R. down the south side of New river to a point above and across the river from Fayette Station, and the increase of two mines to the district; while again we have the development of the Loop Creek territory, through the lands of Thos. G. McKell by a 10-mile branch Railroad from Thurmond, on the main line to MacDonald. This extension seems to tap the Sewell seam in its thickest point, where we have an average of 5 ft. 1 in. clean coal, and six operations working almost daily and having a capacity of 100 cars, or 2,500 tons; moreover we will note the extension of the Railroad up Laurel Creek at Quinnimont, and that up Meadow Creek in Summers County by the Beury Bros.

In the back of this report are such tables of collected data and information as I deem it expedient to publish, and in this connection allow me to state that for much of the matter of general interest and for valuable assistance I am under many obligations to Mr. Louis W. Atkinson, resident engineer for a number of the New River Collieries, all of which I trust will meet with your approval.

Respectfully submitted,

Signed: H. A. Robson,  
Mine Inspector 3rd Dist. W. Va.

Cotton Hill, Fayette Co., W. Va.

### **The Pocahontas or Norfolk & Western Coal Field.**

#### **LOUISVILLE COAL & COKE CO.—(P. O., Goodwill.)**

This company operates on Flipping Creek, a branch of the Blue Stone River; working the No. 3 of Pocahontas seam, which, at this point, attains a thickness of five feet, with  $2\frac{1}{2}$  inches of boan three feet from the bottom; above which we have from three to six inches of draw slate, which, coming down gives a hard, blue slate top. The company sets the props and lays track for the miners, but about the time that this report goes to the printer, the new regime will be in force, and the miner will not only set his own posts, but also lay his track. The mine car used at this point is said to contain 75 cubic feet.

The workings are divided into two distinct mines, the old, or

No. 1, not being worked at present, while No. 2 is working not only entries, but a few pillars are being also drawn.

The ventilation is effected by means of a first-class fan, and, while the rooms are driven quite long, the break-throughs are so carefully driven that I have always found the ventilation very satisfactory. It may be noted, in this connection, that there have been no serious accidents at this colliery during the past year.

The coal, while being semi-bituminous, is considerably harder than the greater part of the Pocahontas seam at other points, and the lumps shipped from this place, over a  $\frac{3}{4}$  inch screen, is unusually clean and finds a most satisfactory market.

As noted in the former report, this company is very careful in regard to its drainage and, besides the ditching heretofore done, they were preparing to carry off considerable water from the robblings by a new drain. The falls in the old workings are very clean, and I am informed by the land company that their percentage in the winning of coal is unusually large.

The colliery is fitted with a coal crusher and other improved machinery.

Superintendent, Justus Collins; Bank Boss, Thos. Lewis.

#### GOODWILL COAL & COKE CO.—(P. O., Goodwill.)

Also located on the right hand fork of Flipping Creek, adjoining the Louisville Company, we have the above, there being also two distinct mines. The old one, or No. 1, will, from this time on, consist entirely of robbing, as the working was mostly on a long narrow point with a main entry somewhat of a mile in extent. On my last visit to this Company, I found that this entry lacked but a few feet of the crop, and it was the intention, as soon as this entry was worked out, to begin and draw the pillars, bringing all with them as they came. The top, in both mines, is quite treacherous, and I was forced to call their attention to the top in the main entry, which, though no doubt sufficiently posted at first, had by this time settled and become dangerous. This defect they have rectified. The ventilation and drainage have been satisfactory on all my visits. The coal shows 4 feet 9 inches with a strata of boan 6 inches thick, 3 feet from the bottom, which often disappeared and the whole seam is shipped. The top consists of four inches of soft-drawslate, which comes down with the coal leaving a fair top.

Very little of the coal is shipped from this section of the mine. Mine No. 2, being the point at which most of the work is now done, is connected with the tippie by a 1500 ft. tramway; the coal in this section compares favorably with the above, having the same strata and impurities.

On one of my former visits I found that they were driving double width rooms, with two tracks, and on my calling their attention to the same, they informed me that the top seemed more secure under these conditions. On my last visit I noticed this system of working, and whereas I cannot report particularly favor-

ably of the same, I cautioned them to insist upon the miners setting ample posts. This company has been rather unfortunate in regard to injury, but the promptness with which they report accident and the attention bestowed on the work by the bank boss, leads me to believe that it is the treacherous top and ill luck that occasions the casualties.

Superintendent, Phillip Goodwill; Mine Boss: No. 1, Lev Workman; No. 2, J. W. Foy.

#### THE BUCKEYE COAL & COKE CO.—(P. O., Simmons.)

This company is operating on the right hand fork of Simmons Creek, across the hill from and adjoining the Louisville Company. In regard to the top at this Colliery, it may be noted that, on first operating the seam they had the first class top of the Pocahontas field, but on the work progressing, towards Goodwill, they encountered the dangers of draw slate, and in the workings near the face of the main entry and contiguous thereto, they are greatly annoyed by large falls of slate, while in the old and pillar workings the top is quite good with clean falls and good drainage. On my last report I was forced to note the accumulation of water in the main entry about 300 feet from the face. This trouble still exists, and, although a comparatively small amount of coal is hauled over it, it is of such extent as to injure the general appearance of the mine. I trust that the company will rectify this little oversight and that I will not be forced to call attention to such trivial matters hereafter. The ventilation effected by means of a fan is quite good, as is also the drainage, with the above exception. The coal shows up 5 feet 6 inches with a small streak of impurity, three feet from the bottom. In the early workings of the company the appearance of the  $\frac{1}{2}$  inch band of sulphur with 8 inches of coal above, afforded them good and safe top, but on continuing the workings, this sulphur streak seems to have become more brittle and in nearly all cases breaks, letting down six or eight inches of coal and a foot of treacherous slate. Their new tippie is directly connected with the drift mouth and while the hauling is now done with mules, they contemplate putting on a locomotive.

Superintendent, (formerly) B. Moore; (now) Jno. D. Hewitt; Bank Boss, Thomas Gent.

#### THE CASWELL CREEK COAL & COKE CO.—(P. O. Simmons.)

This operation is located on Simmons' creek, also a fork of the Blue Stone River, mining the Pocahontas or No. 3 seam. The workings extend from a point near Bramwell across to the Booth Bowen Company workings.

On my last report we had two distinct mines operated by the same company. Mine No. 1, or Hemlock, being the oldest and most southern portion of the lease, is that lying contiguous to the Mill Creek Company's workings, having an outlet for ventilation

and drainage on the Cooper side. This is one of the Companies whose workings the Pocahontas seam attains its greatest thickness, often reaching 7 feet 6 inches of clean coal, and being free from bone, but usually, having 18 inches of coal separated from the main body by a light sulphur band. This sulphur and top coal are usually left up, affording an unusually good top which will stand for years, and when robbed breaks with clean falls. The mines are connected by an entry of considerable extent, which being connected with day light affords perfect drainage for the bulk of the workings. In this old mine there is now an entry being driven straight from the drift mouth, to the further extremity of the lease on the Mill Creek side.

Mine No. 2, although being newer than the above contains also considerable robbings. The drainage and ventilation in both of these workings are perfectly satisfactory. In my last report I made casual mention of an entry 6 000 feet long, which was just driven from the Simmons Creek side entirely through the hill to Elkhorn Creek. Of late this work has been pushed; new cross entries being turned, and the locomotive entering the same.

This operating of the new works with the locomotive was done a little too prematurely, as I was forced to call the manager's attention to the lack of sufficient stoppings and doors to satisfactorily carry off the accumulation of smoke. Old No. 1 Mine has direct connection with its tippie at the drift mouth, while Nos. 2 and 3 have hallway of 2,300 feet. All through these workings the top maintains its safe condition and am pleased to report but few accidents occurring by reason of the same.

Superintendent: Jenkin Jones; Bank Boss of No. 1, H. Cullis; Nos. 2 and 3, Milton Gilmore.

#### BOOTH BOWEN COAL AND COKE COMPANY—(P. O. Simmons.)

This mine is located on Simmons Creek, opposite Casswell Coal Co., and adjoining the Buckeye. In this instance we also have what is called the old and the new mines; the former of these is now practically worked out, and while in my old report I placed 1000 feet as the farthest limit at which the main entry is being run, I may now place the same at about 500 feet from the drift mouth. The accumulation of water in the main entry near the face of the old workings was carefully handled and has been drained off, and now very little annoyance is experienced either in regard to the drainage of the top. How long work will be prosecuted in this section will of course depend upon the supply of cars, but the Company will endeavor to push this to completion as soon as possible as the standing of old work is an annoyance and expense. The more recent portion of the workings, or we may say in Mine No. 2, are in very good condition; the ventilation being effected by a 12 foot fan. This portion of the work is connected with the tippie by a tramway of a thousand feet, on which a locomotive is used. The coal being a No. 3 seam, is 7 feet thick with 3 inches of boan



3½ feet from the bottom, with the usual light sulphur band affording a safe top. I have been carefully over the robbings of this company, and I am pleased to report that it receives careful attention. I should judge from the different reports concerning this company that it runs as steadily and produces more coal than any company in this vicinity. They are also prepared to ship the different grades of coal and coke, while the 23 ovens, heretofore spoken of, are completed, making a total of 174, and bringing the plant to the front as one of the most extensive in the field.

Superintendent: J. P. Bowen; Mine Boss, T. E. Thomas.

#### MILL CREEK COAL & COKE CO.—(P. O., Cooper.)

Situated on the Mill Creek fork of Blue Stone, we have the two distinct mines of the Mill Creek Company, known as the east and west mine. The only connection is that of ventilation. The west or old mine on the left hand side of the creek, extends from a point near the portal of the tunnel to the lease of the Southwestern Virginia Improvement Company. This extensive territory being one of the first operated in the field, is now nearly worked out. Mr. John Cooper, the superintendent is using most of the coal from this mine to supply the coke ovens; since, by reason of the squeezes incident upon old workings, the output contains more slack than usual. A great deal of the work is and has been done under sub-contracts. Considerable expense and trouble have had to be overcome in the successful handling of the water, accumulated from the large falls and breaks in the top, but on my last visit I found very little in this regard to complain of.

The coal attains a thickness of 10 feet being in most cases entirely clean, and it may be noted in this connection, that in this mine and Coaldale contiguous thereto, we find the only section of coal free from the boan, usually noted in the Pocahontas seam. The top, throughout the workings, is good. Connected with the west side by a 15 ft. fan and air-way we have the east or new mine. In this section of the mine we have an unusually large amount of new work opened up, there being entries of considerable extent with good top, good drainage, good ventilation, and room to simply turn, awaiting an increase in men and cars for a corresponding increase of output.

Immediately connecting this east side with the tippie, is a slope of about 200 feet up which the cars are pulled by a tail rope. In this side also we find the coal often reaching 10 feet in thickness but in most instances we find about 3 inches of boan located 5 feet from the bottom, which, indeed, in some cases, becomes a species of hard coal and is shipped in its entirety. In most cases the tough sulphur band of about an inch thickness with several inches of coal above it is left for a top. On the main entry several large falls were encountered, and I called their attention to watching the top particularly at these points, and a section at about 300 feet from the drift mouth, where are several mud seams, made the top un-

usually treacherous. Sometime prior to my visit one of their long cross entries had holed into the workings of the Caswell Creek Company's, where much water had accumulated. I am advised that this gave them a little trouble at first, but no bad effects are now observable. I am pleased to report most satisfactory drainage and ventilation throughout the workings and the effect of careful attention are to be noticed in the pillar work and in the regularity and neatness both of rooms and entries.

Superintendent, Jno. Cooper; Mine Boss, M. P. Montgomery.

COALDALE COAL AND COKE COMPANY.—(P. O. Coopers.)

This operation is located at the west end of the tunnel, adjoining the Mill Creek Coal and Coke Co. on one side and the Elkhorn Coal and Coke Co. on the west.

Among the larger mines of this field this company takes the most prominent part. Here we find the Pocahontas seam reaching its greatest thickness with a perfect top, being from 10 to 10½ feet of coal, having sulphur top throughout, and in the cases where rooms have been worked and left standing for several years we find the track clear of falls and in the majority of cases the rooms are in such a condition that robbing may be proceeded with immediately without other expense. The system of endless rope haulage casually touched on in my former report has proved a great success. The rope running at the rate of about 4 miles per hour and working similar to the cable system in the large cities, will successfully land as much coal as the company can possibly handle. The system of crossovers on the main entry on which the rope runs to the gathering point for mules on the cross entries, are carefully kept clean and free from foreign substances and the cutting and raveling of the rope, which at first was feared and experienced, seems now to be under better control. The entry paralleling the tunnel on the left hand side of the workings is finished, and it is no doubt a great relief to the company to find that by careful engineering and mining they have avoided causing any settling or injury to the lining of the tunnel, and when they have begun to rob in this territory they have no fear of the after bad effects. One great drawback to this company in operating its lease is that much of the work must be done on the dip, and in order to secure effectual drainage now and in future they have gone to the expense of about 3,000 dollars in digging the ditch several hundred feet long and ranging from five to thirty-five feet in depth. The outlet of this ditch being one of the lowest points in the whole lease is expected to amply drain the entire territory when robbing. The ventilation throughout the mine being effected by a 20 foot fan is perfectly satisfactory.

In some of the dips or swags of this mine the coal attains a thickness of 11 feet 2 inches, having about 3 inches of boan five feet from the bottom, which is, I think, the greatest height of coal encountered in the Pocahontas field.

Superintendent: Thos. H. Cooper; Mine Boss: T. E. Williams.



## ELKHORN COAL AND COKE COMPANY.—(P. O. Maybeury.)

This company operates a lease adjoining that of the Shamokin and Coaldale Companies, which has always been carefully worked, and on consulting the reports of the former inspectors my own and the opinion of the men employed at and about the mine I am gratified to find that such care and attention have always been given to this mine that satisfactory reports are justified, both as to its ventilation, drainage and general condition. The coal is 8 feet 4 inches, there being a slight impurity 2 feet from the bottom, while usually three inches of boan occurs about 3 feet from the top.

The sulphur band, with its one foot of coal above, is left up for top. It may be noted in connection with this mine, that they are now using a 12 foot fan, which, though running at its full safe capacity, gives satisfactory results, and is the same fan that has been used from the beginning of the works to the present time. Prior to which, the same was used in a colliery of this company in the Pennsylvania field. It may be noted that this and the Shamokin Company are among the few who set props for the men. They were unfortunate some time ago to have their drum house and some of the timbers of the drift mouth destroyed by fire. These have now been rebuilt with the addition of a complete house for the storage of the locomotive.

They have now in contemplation the erection of a new tippie. Direct connection is made between the mine and the drum house; thence the 400 foot incline connects the same with the tippie.

Superintendent, W. H. Barlow; Mine Boss, J. A. Cardwill.

## THE NORFOLK COAL &amp; COKE CO.—(P. O., Maybeury.)

This company is operating a lease immediately west of and adjoining the Caswell Creek Company, and has justly the reputation of being one of the safest and best conditioned mines in the Elkhorn field. In all my visits I have found the drainage good, the ventilation perfectly satisfactory; the falls and the robbings clean; the setting of the posts carefully looked after and such actions taken by the management, as have always insured the good condition of the mine and a favorable report from visitors and your mine inspector.

There have been no accidents of note during the past year. The coal at this point is 8 feet 9 inches thick, with three inches of boan 2 feet from the bottom; also a slight trace of boan 5 feet from the bottom, while the top, consisting of the usual sulphur band with one foot of coal above; is at this place usually taken down. I will refer you to my former report where I have noted that on the 8th left hand cross entry, 10 feet of coal was encountered in a local swag, where two sets of tracks are used, one on the original bottom and another 10 feet above the same, affording almost a viaduct for the haulage of coal.

Superintendent, Stuart M. Buck; Mine Boss, J. W. Devinney.

## ANGLE MINE.—Of the same company.

This mine is located about  $\frac{3}{4}$  of a mile from the old mine, above described, and is operated and controlled by the same company. The ventilation is usually quite good, although on one of my former visits I was forced to call the manager's attention to the fact that sufficient care had not been bestowed on the firing of the furnace that day, and, in reply to the same, I was informed that this oversight was occasioned by a temporary absence of the mine foreman. Since my last report they have driven a new drift to the crop; have located a fan and, no doubt, by this time the same is in successful operation. The drainage in these workings is also satisfactory.

Allow me to diverge from the general order of reporting and call attention to the unusually neat and substantial new tipples the company have erected; also to the expense the company have assumed in grading the main entry from the drift mouth to a point about 500 feet within. For the loaded trips coming out the top has been shot for a considerable distance, affording a grade in favor of the load of about 18 in. to 100 feet, and a similar working grade for the returning empties. The neatness and accuracy of this work, as well as the care that has been bestowed upon the timbering of the drift mouth, attracted my immediate attention, and I trust I may be pardoned for the digression.

The coal is eight feet 4 inches thick, with 4 inches of boan  $4\frac{1}{2}$  feet from the bottom. The top being about the same as in the old mine, but I notice that, especially near the crop, where mud seams have been encountered, the top is, in some cases, far from good.

Superintendent: Stuart M. Buck; Mine Boss: W. F. Whitt.

## SHAMOKIN COAL AND COKE Co.—(P. O. Maybeury.)

This operation is located at Maybeury station, immediately at the forks of Elkhorn Creek.

Little can be said in detriment to the workings of this company. The little complaint entered against the same in my former report was immediately rectified after my visit, and on my trip just prior to this report I was pleased to find that they had taken down some dangerous top in close proximity to one of the main workings. The coal is 8 feet thick, with three inches of boan from 18 inches to 2 feet from the bottom. This boan often becomes a hard texture of coal and it is shipped in its entirety. In most cases, however, this boan is carefully picked from the coal before shipment. The sulphur band with its usual foot of coal above it, is also left up at this mine. As previously noted, the smoke occasioned by the engine entering the mine on the main intake of the air, is carefully taken off through a regulator. We note that no serious accident has ever occurred at this colliery, and I am told that the percentage of coal obtained by this company in the robbing often reaches

from 87 to 89 per cent., which is an unusually good showing. This is most probably due to the good top and to the careful handling of the work at the outset. An incline of about six hundred feet connects the drift mouth with the tippie. The ventilation, by means of a fan is perfectly satisfactory, as is also the drainage.

Superintendent: Jno. Hunter; Mine Boss: Jno. Carmell.

#### LICK BRANCH COAL AND COKE Co.—(P. O. Maybeury.)

This company operates a lease located on the right hand side of Elkhorn Creek between the Crozier and Shamokin Companies, and is connected with its tippie by a tramway about 1,800 feet long. The ventilation by means of a twenty foot fan is excellent, and the drainage is also satisfactory with the exception of one place in the main entry, where an accumulation of water was noticed on one of my former visits, but which in no way interferes with the comfort of the employees.

Similar to many other companies in this field, an experienced man is constantly employed looking after and directing the working in the robbings and the drawing of stumps. The first and second set of left hand cross entries have been entirely worked out on the railroad side, and not only are the rooms being drawn but also the chain pillar. There is 8 feet 4 inches of coal with 4 inches of boan, located 4 feet 6 inches from the bottom. The top coal with its  $\frac{1}{2}$  inch of sulphur band, is left to support the top. Very few accidents occur in this colliery, owing, no doubt, to the excellent top and the careful attention of the mine foreman.

Superintendent, E. J. Hutchinson; Mine Boss, Wm. Moore.

#### TURKEY GAP COAL & COKE Co.—(P. O., Ennis.)

This company is operating a lease situated on the left hand side of Elkhorn Creek, extending over to and adjoining the Greenbrier Coal and Coke Company, and is two miles above Elkhorn station, near which point it adjoins the Houston Coal and Coke Company. A 16 ft. fan affords excellent ventilation and I can do no better than to repeat that in each and every one of my visits to this colliery, the ventilation, drainage and all its appurtenances have been in a first class condition while the Sulphur top, being unusually tough at this mine, causes them very little annoyance, enabling them to keep it clean and at the same time, is safe mining. The locomotive running over an 800 ft. tramway connects the tippie with the drift mouth. This locomotive, though entering the mine for quite a distance, both on the main and cross entry, occasions no annoyance by smoke to the men, as this inconvenience is carefully looked after by the management. It may be here noted that the main entry has lately been driven entirely through the mountain, cropping on the waters of the right hand fork of north fork, about half a mile below the tippie of the Greenbrier Coal & Coke Co. This affords the Company another intake for air and gives

them access to a large territory of timber heretofore unavailable. The coal is 8 feet thick with  $3\frac{1}{2}$  to 4 inches of boan, four feet from the bottom. A light, though tough sulphur band, with one foot of coal above it is left up for the top. In many instances the boan, above referred to runs into coal and is then shipped in its entirety. From the map of the Company, I note that quite a territory has been worked out, and the rooms are now standing, and from the steps the Company are now taking I should presume that they propose to rob extensively.

Superintendent, W. H. McQuail; Mine Boss, Jas Hopkins.

CROZIER COAL & COKE COMPANY—(P. O., Elkhorn.)

Located near Elkhorn Station, this Company operates a very extensive lease on the right hand side of the creek, immediately below the Lick Branch Colliery. Their mines consist of two sections, known as No. 1 and No. 2. It is at this place that we find electric machines in haulage use. The Jeffrey Manufacturing Company have successfully put in a large electric plant which at this place, has every opportunity for a successful trial, the coal being eight feet six inches thick, with  $3\frac{1}{2}$  inch parting, about  $4\frac{1}{2}$  feet from the bottom; moreover, the sulphur band, with its 10 inches of coal above, is here left up and forms an excellent top, indeed in many parts of the mine they are forced to set only one row of posts 15 feet apart and this work can be left standing with safety for three or four years, with no falls of top nor injury to mine.

The ventilation, by means of a twenty foot fan which replaced the sixteen foot one formerly in use, is excellent, as is also the drainage. It has been the intention of the company to use the sixteen foot fan at Mine No. 2, but as the present fan gives satisfactory results at both mines such a change is not deemed necessary at present. In Mine No. 2 mules are used for the main hauling. In Mine No. 1 the locomotive has been dispensed with, and an electric motor now hauls the coal over the one-half mile tramway connecting the mine with the tippie; it also enters the mine up the main entry and several cross entries, and gives perfect satisfaction. In my former report I made note of the syphon and pump which the company expected to employ for carrying the water from the seventh cross entry. On my last visit I found nothing whatsoever in the entire workings to complain of, and I was much pleased to see what an advantageous effect the use of electricity had on the ventilation of the mine. During the late labor trouble, incident upon the reduction of the price of the coal, this company being one of the railroad mines and wishing to run throughout the difficulty, found their electric plant of inestimable value in their emergency. No reasonable expense or trouble is spared by this company in keeping their workings in good repair. The rooms are carefully posted, their entries wide and clean and all water carefully kept in check.



I was surprised also to note that in several cases there were quite a number of rooms simply turned off of new entries, with centers and the turn laid, so that in case the output of the mine should of necessity be increased, the same could be done at a moment's notice.

Connected with this colliery is also a very elaborate tool and repair shop, where are made all the switches and appliances necessary for general mine work, and where formerly considerable of the general repairing in the neighborhood was done.

Superintendent: F. D. Morgan; Mine Boss: of No. 1, W. H. Devinney; of No. 2: Frank Enfield.

#### HOUSTON COAL AND COKE COMPANY.—(P. O. Elkhorn.)

This company, operating a lease at Elkhorn station, adjoining the Turkey Gap and Powhatan Company, is another operation that has put in improved machinery for the handling of coal. On my last visit to their colliery they had their electric plant in place, but had never run the same. The tippie is connected with the drift mouth by a tramway 2,000 feet long, from which point the locomotive enters the mine both up a cross and main entry. The smoke occasioned thereby being carefully conducted to the main return airway. During the poor run of last spring this company went to a great deal of expense in preparing their entries, and more particularly their main entry for an electric plant. The latter they layed with extra heavy iron, bracing the same with cross ties extending the entire width of the entry; also placing in needle switches and full ballasting the roadway. This makes one of the finest tracks I have noticed in the whole field. The ventilation by means of a 16 foot fan is quite satisfactory. The only little suggestion I made to the company on my last visit, and indeed to several other companies in the same vicinity, was in regard to sprinkling some of their old entries, on which considerable dust had accumulated. I therefore sent a circular letter to six of the companies where I noticed this accumulation of dust, lest by reason of the rapid workings of their fans the entering of the locomotive in the mines and the rapid hauling, another catastrophe, similar to that which occurred at Pocahontas some time past might happen in our territory. I requested that they haul such waters as they had in their wet rooms over said entry once a week, as I deemed this a sufficient precaution. It seems that a great portion of the Houston Company's workings had the safe top of the Pocahontas field, but I have noticed that in some parts, most particularly in the workings of the old mine, the top is unusually treacherous and seems split up by numerous mud seams. The drainage of the main mine is satisfactory, while that in the old mine, now worked by contract from the Company, is vastly improved.

In passing, I may note that the coal in the old mine will be entirely wonned in the near future, as they are now working about 350 feet from the drift mouth. The system of splitting the pillar

which had to be resorted to in some parts of the mine is still carried on, with comparatively few mishaps. The coal is 7 feet 10 inches, with a  $\frac{1}{4}$  inch parting four feet from the bottom. The one inch of sulphur band with its foot above is left up at the top. This company have also fitted up quite an elaborate tool and repair shop.

Superintendent: E. Q. Houston; Bank Bosses: Lewis and Farrin.

#### UPLAND COAL AND COKE COMPANY.—(P. O. Elkhorn.)

The above operation is located near Elkhorn station, and the Crozier and Lynchburg leases. The ventilation is effected by means of a 20 foot fan with very satisfactory results. On one of my first visits to this quarter I found that they had unfortunately broken the top in some of the old workings, and part of their main entry and one of the cross entries was flooded. This state of things existed but a short while, as they took immediate steps to rid themselves of the annoyance. Very little work is now being done in the old mine and the company have opened up a new drift just across the Upland branch. The connection between the tippie and the old mine is a 600 foot tramway, while that to the new drift probably exceeds 2,000 feet. The fan above referred to now works exclusively in the old mine, a furnace being employed at the new drift for ventilation. A comparatively small extent of territory is being now opened up, and the ventilation is satisfactory. Just a short while prior to this report this company have had also put in electric cutting machines, manufactured by the Jeffrey Company. At this colliery the same favorable circumstances for electric mining exists, since there is 7 feet 10 inches of coal, with a parting of about 3 inches located  $4\frac{1}{2}$  feet from the bottom, while the usual sulphur streak with its top coal above is left up for top. This sulphur top in the old mine renders the workings quite safe, while I have noticed that in the new drift, most especially in the crop rooms, this sulphur will break and leave a most treacherous top exposed. Several dip rooms on this account had to be practically abandoned. It may be noted in this connection that the mine is lighted by incandescent lights. The locomotive enters mine No. 1 for quite a distance, but will not be used in No. 2 until a system of ventilation more sufficient is in vogue.

As concerns the out door plant of this company, they have of late put in successful operation a complete outfit of conveyers, crushers, etc., for the handling of coal and coke.

Superintendent: Rolfe Gerhardt; Mine Boss: J. K. Flanner.

#### POWHATAN COAL AND COKE COMPANY.—(P. O. Powhatan.)

The above company operate a lease lying on the left hand side of Elkhorn Creek adjoining the Houston Company on the east and Elk ridge on the west. The workings consist practically of two mines. The older of the two, No. 1, consists now mostly of pillar

work and indeed very little coal is being hauled from the same, as on my last visit, only about 10 men were employed therein. Owing to the small amount of work done in this section their 16 foot fan is seldom run.

Mine No. 2, or that portion lying immediately adjacent to the Houston Company, is now furnishing the bulk of the coal for shipment. The general ventilation of this mine is quite good considering the company are now forced to drive long and narrow work to connect this new drift with the old mine. In this particular quarter of the working the air is, of course, tight, but in such cases the end fully justifies the means. There is also a third or smaller drift being driven to connect with No. 2, and it is the hopes of the company that both connections will be made about the same time. I regret to be forced to call attention to the poor drainage I found in the new works, and even though this part of the colliery is mined on the dip it seemed to me that a little more water was allowed to accumulate than was absolutely necessary. I fully appreciate that the strike in this district caused considerable water to back up in the old workings, and, in this connection, I may say that a number of little trivial details detrimental to the condition of the mine must be passed over, since we recollect how long the workings of the mine were idle. As noted before, this mine is often spoken of as usually one of the best conditioned in the Pocahontas field, the coal being 8 feet thick, with a 3 inch parting 4 feet from the bottom, with the usual  $\frac{1}{2}$  inch sulphur band, which, except in the cases of a few crop entries and rooms, is left up and affords excellent top. A tramway of about 1,500 feet in length connects the incline with the new mine. The company have lately put in a most elaborate plant including a revolving screen, enabling them to ship all grades of coal and coke. This plant was erected under the direct supervision of Messrs. J. J. and L. E. Tierney; one superintendent of this company, the other chief engineer of the Crozier Land Co.

Superintendent, L. E. Tierney; Bank Boss, Jas. Hettermann.

#### LYNCHBURG COAL AND COKE COMPANY—(P. O., Kyle.)

The lease of this company is located on the right hand side of Elkhorn Creek, adjoining that of the Upland and Pulaski companies. It is in the workings of this company that we first find the sulphur top of the Pocahontas field too brittle to be left as a safe top, since part of this mine discloses the first class top of Powhatan and Upland companies, while that on the right of the main entry, or in other words, towards the Pulaski lease, is very treacherous and annoying. This band or section of bad top is very clearly marked, extending along the southside of the North Fork and intersecting the Elkhorn mines at about the middle of the Lynchburg workings. From this point up Elkhorn we have first class safe top, as the scarcity of casualties will indicate, while below we have no colliery in which the top is not treacherous and expensive.



The Lynchburg colliery is ventilated by a sixteen feet fan with good results, although on my last two visits, I was forced to call their attention to a need of a door on the last cross entry where they had been driving long rooms for crop. On account of being idle, considerable water had accumulated in the main entry, and on my last visit, I found that they were shooting top and grading this entry preparatory to working the same and allowing the locomotive to pass over it. A tramway of about nine hundred feet connects the drift mouth with the incline. This company has also erected a very complete plant for the handling and shipment of coal, consisting of the latest arrangement of crusher, conveyers, etc.

The coal maintains an average thickness of six feet ten inches, having a  $2\frac{1}{2}$  inch parting,  $4\frac{1}{2}$  feet from the bottom, with a streak of sulphur about ten inches from the top, which formerly had to be taken down but now as they approach the Upland lease this sulphur band affords them a safe and satisfactory top.

Superintendent, L. E. Tierney; Bank Boss, William Hettermann.

#### ELK RIDGE COAL AND COKE Co.—(P. O. Kyle)

This Company operates the lease lying at the junction of the two forks of Elkhorn, immediately below Powhatan, and has the reputation of being one of the best laid out mines in the Pocahontas field. On my former visits they were using a furnace, on my last two, a sixteen foot fan had been erected and the ventilation was very good indeed. The coal shows six foot ten inches, with but an inch and a half of ban, four feet from the bottom, and a small streak of sulphur eight inches from the top. This light band often disappears entirely. The top almost throughout the entire workings is quite good, with the exception of a few rooms off the first cross left entry and at a point on the main entry where they passed under light cover.

The general condition of the mine is excellent, and even a casual observer will note that all possible means are resorted to to keep the mine in first class shape. All entries are driven true to center, the robbing carefully watched and the falls clean. A tramway of two hundred feet connects the tippie with the drift mouth. I am advised by the management that a locomotive will be used for the handling of the coal as soon as the extent of territory opened up will justify it.

It seems that but two serious accidents have occurred in the past year in this colliery, and these have been in the robbing where the worst top existed.

Superintendent, H. P. Wright; Mine Boss, C. A. Devinney.

#### ALGOMA COAL AND COKE Co.—(P. O. Algoma.)

This Company operates a lease lying on the north fork of Elkhorn, immediately back of the Keystone property, and consists practically of two mines. Mine No. 1 of the old bank has very

little narrow work progressing now. The bulk of the coal coming from pillars. The rooms off of the main air course are practically worked out.

The ventilation effected by a fan is quite satisfactory, but owing to some of the work being on the dip the drainage is not such as I would prefer to see. It is in this section of the mine that the worst casualty occurring in the Pocahontas field, happened, namely, the falling of several tons of loose slate on four slate men, who were attempting to clean up an old fall and taking down such top slate as they deemed dangerous. Practically without warning the heavy mass fell killing two and seriously maiming a third one. By good fortune one man escaped without injury. In this connection I may note that the company incurs a daily expense of \$25.00 in handling, taking down and gobbing the slate.

The coal is six feet, four inches in thickness, with two inches of boan, three feet and a half from the bottom, and the top with the probable exception of Keystone and Eureka is worst in the field. There is no incline, but a tramway 1,500 feet connects this mine with the tippie.

Mine No. 2 or the new drift opens in close proximity to the tippie and consists entirely of an air course, an entry and the rooms turned off of same. The coal is about the same height and formation as that in the old drift, while the two tops are identical. At the lower end of this lease the company have constructed a coaling station for the Norfolk & Western engines.

The unfortunate condition of the top at this mine and of those on the lower end of Elkhorn is a constant drawback to the proper ventilation and drainage of the mines, and it is only by great care and expense that the companies can so keep up their mine as to compare favorably in the above respects to the collieries of the upper Elkhorn field.

This company has also a coal crusher and improved conveyer for handling slack, and it lately erected quite a handsome store building.

Superintendent, W. H. Thomas; Bank Boss, W. J. Pritchard.

#### GILLIAM COAL & COKE Co.—(P. O., Gilliam.)

Immediately adjoining the Algoma lease we have the workings of the Gilliam company. On perusing my former report, I note where I have called their attention to several defects in the workings of their mine; since the printing of the same, I have had occasion to visit this company several times and I am happy to state that the general condition of the mine is vastly improved. The treacherous slate on the entries and the gob piled in the air way have been removed. A new fan has been lately erected, the road ways cleaned, and no efforts have been spared to outlive the bad opinions of employees regarding the safety of the mine. Heretofore I have had repeated notices of the occurrence of accidents, but of late I have not been called to this place on any account whatsoever.

The company deferred making these improvements for a long while but when they decided to do so went at it with a will and I can now safely say that this operation will compare very favorably with its neighbors. I am more than pleased to be able to report as above, since this mine was known both to me and to others to be unsafe and in very poor condition. A 2200 foot tramway with no incline connects the mine with the tippie. The coal is 5 feet, 7 inches, with three inches of boan, three feet ten inches from the bottom, having also a light sulphur streak one foot from the top. In one of their longer entries extending towards Rolfe, they have encountered the tough, blue slate roof of the latter place and I trust that they have at last freed themselves from their old enemy—the top of Keystone, Empire and Algoma Company.

Superintendent, James Johnstone; Mine Boss, John Main.

#### ROLFE COAL AND COKE CO.—(P. O. Worth.)

This Company is operating about one-half mile above the last named colliery; being connected with the railroad by an unusually long incline. On my visits to this colliery I have not found the ventilation such as I would prefer; since for different slight causes; such as failing to clean out the furnace, banking the fire, etc., they have not kept the ventilation up to the required standard. I have called the attention of the management to the above named suggestion, and it will simply require the careful attention of the mine boss to rectify these little annoyances. Their furnace is a large and good one and although they work their rooms unusually long, practically using their break throughs as haulways, I am satisfied that with proper attention their furnace would give them ample ventilation.

On my last visit to the colliery it was idle and I did inspect it. The drainage in the main body of the mine is perfectly satisfactory, although there is a little work on the dip and crop side of the lease where the water will accumulate. The coal is 5 feet thick, with two inches of boan three feet and a half from the bottom. Above this coal are 5 inches of draw slate, which, usually coming down, leaves a good, black slate top.

Superintendent, Geo. H. Paddock; Mine Boss, Jack Vipperman.

#### ARLINGTON COAL AND COKE CO.—(P. O. McDowell.)

This mine is located on the North Fork, a short distance above Roanoke. It seems that this colliery is under the same direct management as the Gilliam, heretofore mentioned. And on looking over my former records I notice that I enter the same complaints against this Company as regards proper ventilation as I did in the case of Gilliam. These were also slow in making the needed improvements, but I am happy now to make a favorable report. They have lately erected a first class fan, which gives most satis-

factory results, have cleaned out the entries and vastly improved the drainage. The coal is five feet, five inches in thickness, with two inches of boan, three feet from the bottom. Also with a streak of sulphur, quite thin, about 18 inches from the top. The main top consists of a strong, blue slate, under which is about five or six inches of draw slate, with a stratum of fire clay about half inch next the coal.

An incline, but no tramway, connects the drift mouth with the tipple. I may note that a new store is under erection.

Superintendent, James Johnstone; Mine Boss, Robt. Belshaw.

#### ROANOKE COAL AND COKE COMPANY—(P. O., Jones.)

This lease located on the North Fork, adjoins the Rolfe and Arlington companies. This company mines and operates under the most favorable circumstances. Their top is one of the best and safest in the field; their coal quite hard and lumping well and the mine comparatively free from serious rolls.

The ventilation, although effected by means of the furnace, has at all times been quite satisfactory, but I would call the management's attention that the currents of air, although passing entirely through the mine are rather weak on the return, owing to the extent of territory through which they travel. And if the development of the lease progresses as rapidly in the future as in the past, I will be forced to request them to erect a fan at the present site. The coal is five feet three inches in thickness, with two inches bone, three and a-half feet from the bottom, with no trace of the sulphur band. Above this there are six inches of draw slate, which coming down with the coal, leaves a safe and good blue slate top. An incline, but no tramway connects the mine with the tipple. The manager informs me that in the near future they will open up a new drift, put in another incline and rob the rooms now worked from the new drift.

Superintendent, W. S. Cowell; Bank Boss, B. F. Tipton.

#### INDIAN RIDGE COAL COMPANY—(P. O., Worth.)

This new operation is located three-quarters of a mile from the railroad on the North Fork, being connected there with by a three-quarter of a mile spur track. This company have made a number of improvements in the workings of their mine. In the rooms on the old first right entry, they have begun taking the pillars, since the rooms and entry are worked out to that east line. Just to the left of the present main entry and about six hundred feet around the crop from the present drift, they are making a new opening and will speedily place in a fan.

The general condition of the mine is satisfactory, both as regards drainage and ventilation, with a single exception of an accumulation of water on the main entry, which the new opening above referred to will carry off. The coal is five feet two inches, with an



inch and a-half of boan, three feet from the bottom. There is no sulphur streak. The top consists of eight inches of draw slate, which, usually coming down, discloses a safe, black slate.

Superintendent, C. Botsford; Bank Boss, J. C. Cole.

McDOWELL COAL AND COKE COMPANY—(P. O., McDowell.)

This company operates the lease at the forks of North Fork, adjoining Greenbrier and Ashland. There is no tramway, but a short incline connects the tippie with the drift mouth, and the momentum of the loaded cars descending the plane pulls the trip from the parting in the mine by rope, to which parting the gathering is done with mules. This is one of the few instances of rope haulage in this field, as it seems by reason of the high coal and the regular and steady grades in the mines, the companies mostly favor locomotives and electric motors. The ventilation is effected by means of a sixteen foot fan which does good work, but I was forced to call the company's attention to the unusually long rooms that they are now driving. To ventilate these rooms they simply cut break-throughs at from about 125 to 150 feet, and depend entirely upon the pressure of the air to freely circulate the currents. This it will often do under the most favorable circumstances, but we usually find the smoke hanging. Coal is five feet five inches, with a two inch parting two feet from the bottom.

This company mines and ships the entire seam, which is accepted by the Pocahontas Coal Company. The top is fairly good and the company has had but little trouble from accidents. The drainage is satisfactory, and with the exception of the long rooms above referred to, I have but little cause to complain.

Superintendent, T. T. Lineweaver; Mine Boss, James Cooper.

ASHLAND COAL AND COKE COMPANY—(P. O., McDowell.)

This lease is the last on the North Fork and a comparatively new mine. On my last report the company had scarcely begun shipping coal, and I could tell but little of their operation or the care with which they handle the mine. On my last visit, I found that they had quite a little territory developed.

A furnace is used for ventilation but unfortunately for them they had two intakes for the air, and I noticed that the currents baffled. Since the furnace was small and not capable of overcoming the variations caused by atmospheric pressure, I pointed this defect out to the bank boss and since my last visit they have gotten a fan and I presume the same is now under erection. The coal is five feet, ten inches, with  $2\frac{1}{2}$  inches of boan, one foot from the top. Above the coal we have five inches of draw slate, then a hard, safe top. Incline, but no tramway connects the drift mouth with the tippie.

Superintendent, T. B. Dennen; Bank Boss, W. P. Farne.

## GREENBRIER COAL AND COKE COMPANY—(P. O., McDowell.)

This lease is located at the head of the north fork and adjoins the angle lease of the Norfolk Coal and Coke Company and it will also be remembered in a former portion of this report, I mentioned the main entry of the Turkey Gap Company, having been driven through the mountain to the Greenbrier side. The management are making every effort to render this a model mine in every respect. The tipples and ovens being of the latest pattern, the ventilation being effected by a reversible Thayer fan, which seems to give great satisfaction.

In my last report I mentioned the two mines as not being connected and the ventilation was only fair. On my last trip I found that the connection had been made between the two drifts, enabling the fan to ventilate both portions of the mine. That portion of the lease lying near the Turkey Gap Company seems to be the first that the company intends developing where the coal shows 6 feet 2 inches, with from 1 to 2 inches of boan, 18 inches from the top. Above this we often find from 3 to 5 inches of draw slate, while the top is usually a tough, blue slate. In the first left hand cross entry, they have just begun robbing and I presume it is the intention of the company to draw all the pillars in this part of the mine that will not endanger the working by surface cracks.

The main entry of the mine is not now being used, as they are shooting the top, leveling off the entry and laying well ballasted tract with 32 pound iron.

At McDowell Station the Company has also erected one of the handsomest stores in this territory.

Superintendent, Hugh Johnson; Mine Boss, W. F. Anderson.

## KEYSTONE COAL AND COKE CO.—(P. O. Keystone.)

This Company is in operation at Keystone, one mile above Echman, adjoining the Empire and Algoma leases, and on the left hand side of Elkhorn creek. A locomotive is used for the outside haulage of 1700 feet, and is now running a short distance into the mine.

This is one of the only companies in the Pocahontas field using a furnace, and now more especially since the locomotive is run into the mine, I trust that the Company will see it to their advantage to purchase a fan. However, at my several visits, although I cannot make very flattering reports of the ventilation, it is not such that I could censure the Company,

All of the rooms on the first right hand cross entry are worked out, and the room pillars and chain pillars of the entry are now being taken. Unfortunately for the Company, the top is unusually treacherous, continually falling and not only interfering with the general condition of the mine and entailing expense upon the Company, but in one or two cases has occasioned serious accidents. I have been all over the workings, requested certain places to be

taken down and from what I see, I am inclined to believe that the mine foreman uses due diligence in looking after the safety of his men. This is no doubt the worst top in the Elkhorn field, but the casualties have thus far fallen considerably below that of its better favored neighbors. Strange to say the main entry on the Guyandotte side of the lease shows an elevation of 150 feet above the drift mouth on the Elkhorn side, but as yet they have been continually mining on the dip and the water has steadily followed it, forcing them to keep a pump going daily. This water does not interfere with the men, except in the entry. As soon as the main entry begins to raise a pump will be put in and the water either syphoned or pumped off.

The coal attains a thickness of six feet, with an inch and a half of boan, about three feet from the bottom. The top consists of the usual one-half inch of sulphur, which in these lower Elkhorn mines is very brittle. Above which is 14 inches of gray draw slate and which almost invariably falls after the coal is mined and shot from under it. On examination, it seems that upon exposure to the air, this draw slate disintegrates with unusual rapidity, and falling, gives the Company much annoyance and expense.

Superintendent, J. K. F. Steele; Mine Boss, John Murray.

PULASKI IRON Co.—P. O., (Echman.)

This Company operates the lease at Echman Station, adjoining the Lynchburg Coal and Coke Co. Since my last report this mine has undergone numerous changes. The Company having been at great expense to install a complete electric plant, including motors for haulage, cutters, drillers and incandescent lights for the illumination of the entire entries upon which the motor runs. The new fan of which I spoke in my last report has been satisfactorily placed. The ventilation of the mine in general being good, as is also the drainage. In the main and several cross entries the draw slate has been taken down, the entries cleaned, the track laid with heavy iron and ballasted, and we may say the entire mine lately refitted and furnished with the most improved machinery. Owing to the treacherous top, the Company is still forced to cross-timber the rooms and until they rob on an extensive scale, one cannot tell what effect these collars will have on the roof. The coal is 7 feet, with a three inch boan, three and one-half feet from the bottom, while the top consists of an inch of sulphur band, together with the 18 inches of treacherous draw slate, which the Company endeavor to hold up.

When first undermined and shot, the top throughout the mine holds well till the air strikes it, thereby causing few fatal accidents. The electric haulage and mining work even more successfully at this plant than at any other which I have examined. One thing I may be permitted to say is, that when the machine makes its cut across the face of the room, there is invariably about three inches of coal left on the bottom, which seems to be a bone of con-



tention between the loaders and the mine foreman, since the former will often neglect to take this bottom up when loading this coal. This negligence interferes with the future working of the machine at the same point, since it raises it still higher above the true floor.

A short incline and no tramway of note connect the mine and tippie. The greater part of the output of the mines is here coked and shipped to Pulaski, Va.

Superintendent, S. F. Morris; Mine Boss, D. Alsop.

#### EUREKA COAL AND COKE COMPANY.—(P. O. Echman.)

This mine is located on a spur track of about half a mile length, connecting with the main line at Echman.

Since my last report, the Company has placed in a fan which works more satisfactorily, but I am a little sorry to find that they, too, insist upon working long rooms with break throughs for haulways. This method is practically single entry, since no fan nor furnace will propel the air currents to the face of a four or five hundred foot room.

On the first left cross entry there are quite a number of rooms which were stopped before they were entirely worked out on account of water and bad top. Some of these have never been started up again. The main straight entry still remains idle, and what we would understand by the first left serves as the main haulage.

The thickness of the coal is 7 feet, 4 inches, with 5 inches of bone,  $4\frac{1}{2}$  feet from the bottom. At this colliery also appears the usual sulphur band with its one foot of treacherous draw slate above it, interspersed with numerous kettle-bottoms, which require constant watching together with much timber and expense to avoid accidents.

A haulway of about 1500 feet connects the drift mouth with the tippie. This company has also begun the erection of a new store building between the present store and the main line of the railroad.

Superintendent, L. E. Tierney; Bank Boss, W. H. Devinney.

#### SHAWNEE COAL & COKE CO.—(P. O., Echman.)

This lease lies on the right hand side of Elkhorn Creek a short distance below Echman Station, adjoining the Eureka lease. Since the printing of the last report, this company has replaced its old furnace by a fan, with a vast improvement to the ventilation. The general conditions of the mine are satisfactory. The locomotive enters the mine on the main entry which is now partly the return for the air, and also passes a short distance up the cross entry. As before noted in connection with these workings, their drainage is very good.

Unfortunately their top is such as requires taking down and gobbing, which interferes materially with the good appearance of the mine. The coal is six feet, two inches thick, with an inch and a quarter of boan, three and a half feet from the bottom. The top

consists of from an inch to an inch and a quarter sulphur band, then 18 inches of gray draw slate, also one inch of coal and above all of which is the tough, black slate. The sulphur band at this mine seems somewhat thicker and stronger than at the other mines of the lower Elkhorn, and will often stand for a hundred or more feet immediately after the entry is driven. However, that cannot be depended upon, as it disintegrates and invariably falls.

Superintendent, W. R. Graham; Mine Boss, Frank Harold.

EMPIRE COAL AND COKE COMPANY—(P. O., Landgraff.)

This company is operating about two miles above Vivian on the lower side of Elkhorn. On all of my visits from the very first, with the exception of the last, I have noted many improvements for the bettering of the mine and the general safety of the employees.

The old first and second right entries, which abounded in tight air when driving out for the fan and in which the top was always bad, are now worked out, and although in the remainder of the mine the top is still treacherous, I receive few notices of accidents.

On one of my visits to this colliery, I took pains to point out to the mine foreman, such places throughout the entire mine as I deemed dangerous.

For some time the company endeavored to hold up the top by mining on the sulphur band, but such system was not a success.

The company have placed in a first class fan, which ventilates the mine most satisfactorily. The drainage is also good. On the main entry for the greater part of its length the top has been shot to the solid slate, heavy iron laid and the track well ballasted.

The coal is six feet, one and one-half inches, with boan three inches, nine inches from the bottom. The top usually consists of a one inch sulphur band, one foot of grey draw slate, one and one-half inches of coal, three inches of draw slate, one half inch of coal and then one foot of draw slate, making in all two and one-half feet of dangerous top, which necessitates considerable trouble and expenses, as it will surely disintegrate and fall, due to the presence of the streaks of coal.

A tramway of some length but no incline connects the drift mouth with the tipple.

Superintendent, W. D. Ord; Mine Boss, J. M. Shanks.

PEERLESS COAL AND COKE COMPANY—(P. O., Clausen.)

This operation is situated a short distance above Vivian and on the right hand side of the creek. On several of my first visits to the colliery, I was forced to call their attention to several little things, most noticeably, the lack of sufficient ventilation. On my last two visits, I was pleased to find things much changed for the better. A new fan had been put in, making the ventilation perfectly satisfactory as also the drainage. Owing to the absence of the

bank boss through sickness, there were two leaky brattices, but they were mostly due to carelessness.

The coal is five feet nine and a-half inches, with two inches of boan three feet from the bottom.

The top consists of a light sulphur band above which come ten inches of draw slate and two and a-half inches of coal. When the above top is taken down, as is the case in the greater portion of the main entry, we find a tough, black slate and in some instances a sand stone top. It may be again noted that this is one of the dryest mines in the Elkhorn field. A tramway of about 1,200 feet connects the drift mouth with the tippie. The locomotive now runs into the mine quite a distance, but with no inconvenience to the men.

Superintendent, H. C. Zacharias; Bank Boss, James W. Williams.

#### BOTTOM CREEK COAL AND COKE COMPANY—(P. O., Vivian.)

This lease is located at Vivian Station, adjoining the tidewater, with characteristics of the top and coal very similar.

As noted in my former report, I visited this company during the strike on the Chesapeake & Ohio Railroad, when they were running daily and the little irregularities were doubtless more due to the rush of work than to the negligence on the part of the management.

I regret to say, however, that on my last trip not long since, I was again forced to call their attention to leaky brattices and warped doors. We notice the current produced by the fifteen foot fan to be amply sufficient to ventilate workings of even double extent as these in question, but several of the headings were not only very smoky at the time we entered the mine, but I am led to believe from the existing circumstances that this tightness of the air is a common occurrence. I was through the mine with the manager of the colliery and I think he fully well comprehended that there had been some little carelessness somewhere. Owing to the manner in which the land company require them to develop a lease it is somewhat more difficult to keep a first class mine, since instead of driving an entry and its parallel air course direct from the main entry or the main air course, they resort to a method of working, as they call it, the entry and half entry; that is, they turn the cross entry off the main entry and the air course off the cross entry itself. This necessitates two doors instead of one and unless great care is used, the trapper will leave both doors open for the driver. I merely mention this, partly as an explanation of the rather unsatisfactory ventilation of the mine and not meaning to dictate how any lease should be developed.

The thickness of the coal is five feet, 8 inches, with three inches of boan three feet, 7 inches from the bottom. The top consists of one inch of sulphur band, one foot of grey draw slate, with an inch and a half of coal, which on exposure to the air invariably disinte-

grates and falls. This accumulation of slate interferes very materially with the ease and advantages of drainage and ventilation.

There have been six serious accidents during the last year, three of them fatal. The mine is connected with the tippie by a 1,100 foot haulway, but no incline.

Superintendent, Wm. Spencer, Mine Boss, Alfred Nixon.

#### THE TIDEWATER COAL AND COKE COMPANY—(P. O. Tidewater.)

Adjoining the Bottom Creek Company's lease, this colliery is the last in the Elkhorn field, 177 miles from Kenova, on the left hand side of Elkhorn Creek, near the point at which the Pocahontas or No. 3 seam passes below water level, and in this case a slope of about 250 feet in length is required to raise the coal to an elevation sufficiently great to screen and dump into the cars.

The ventilation in this mine is obtained by a first class 15 foot fan and the drainage, considering the low water level, is quite good.

On one of my visits, the air was a little tight in one of the upper cross entries, due partly to a fall of slate, partly to a needed break through; but on my last visit I was pleased to find the break throughs close to the face of the heading. The pillar work in the old first right being carefully watched, and little or no accumulation of water. The seam here is five feet nine inches thick, with three inches of boan, three feet and a half from the bottom. We have a little fear lest in working this seam below the water level, some gas may be encountered and I urged upon the Superintendent that he should make it a personal matter with him to see that the Bank Boss examine the heading each morning before allowing the men to work therein.

Superintendent, James Johnston; Bank Boss, Jno. A. Grantham.

#### CHARLESTON COAL AND COKE COMPANY—(P. O., Welch.)

This operation located in the lower end of McDowell county, is, I am advised, about defunct. As I understand, practically no work has been done in the last five or six months. The shaft was to be sunken to a depth of about 180 feet, with the intention of reaching the No. 3 or Pocahontas seam, which at this point is supposed to be 170 feet below water level. When work was stopped, only a portion of this distance had been driven.

Superintendent, T. L. Henritze; Mine Boss, ———

#### THACKER COAL AND COKE CO.—(P. O. Thacker.)

This Company is located at Thacker, in Logan county, now Mingo county, on the Ohio extension of the Norfolk and Western R. R., 112 miles from Kenova, and is operating a seam of coal usually averaging 8 feet, only 5 feet of which is worked. The remainder consisting of a foot of soft fire clay and bottom coal,



which seam is supposed to be one of the measures of the Great Kanawha river. In some cases the fire clay parting near the bottom of the coal becomes an impure variety of coal, burning to a white ash. This mine is connected to the main line by a spur track about three quarters of a mile long and with the tippie by an incline 1,020 feet long.

My first visit to this mine was during its infancy, and when last there, they had driven the main entry through the hill, erected quite a good furnace and both the drainage and ventilation were satisfactory. However, on one visit, I recall the air in two of the headings as quite tight, and I urged the manager to double shift the entry both from the inside and out.

Connected with this mine is also a coaling station for the Norfolk and Western engines. The coal is of the nature of block, and seems to find a good sale for domestic purposes in the eastern markets.

Superintendent, J. A. Williams; Mine Boss, Thos. Lightfoot.

#### MARITIME COAL CO.—(P. O. Thacker.)

At the time of my last report this Company was not shipping, but they have now four drifts, worked, we might say, as distinct mines, each having its own furnace, its air course and entry, with rooms turned directly off of these. This system is adopted, as the coal lies near the top of the mountain and is but a thousand feet from crop to crop.

This is the same seam worked by the Thacker Company, being of the same texture, but a few inches lower. The drainage and ventilation have always been satisfactory.

The drift mouths are connected with the drum house by a tramway about 1,500 feet long, thence an incline, 1,350 feet, to the side-track.

Superintendent, Robert Mauchline; Bank Boss,

#### PEARL MINING COMPANY.—(P. O., Dingess.)

This Company, located near the Dingess tunnel, in Logan county, sixty miles above Kenova, are operators in the splint coal measures, with a seam having a thickness of five feet, which consists of 16 inches of clean coal, two inches of boan, two feet of coal, and two inches of boan, with the balance clean coal. Having good black slate top, with practically no draw slate. On my first visit to these works, I found them relying too much upon natural ventilation, while on my last trip they had a furnace and quite good ventilation. They are much annoyed by rolls and faults, sometimes shutting off almost the entire coal.

Water, also, is a great annoyance in the dip workings, but I think they use all possible means to carry off the same as rapidly as it makes.

There is a tramway of 500 feet, the Company having no incline. R. O. M., lump, nut and slack are shipped. Superintendent, C. P. McCafferty; Bank Boss, David Swartz.

THE LYNN COAL AND COKE COMPANY.—(P. O., Sheppard.)

This Company, operating in Mingo county, below Thacker, have been shipping coal comparatively a short time. The seam mined is identical with the Thacker seam, having a thickness from three feet six to four feet six. They use a two inch lump screen and  $\frac{3}{4}$ -inch nut screen and pay the miner 55 cents per ton for each ton of lump passing over same.

Superintendent, R. J. Trumon; Mine Boss, Wm. Cook.

WELLS BRANCH COAL COMPANY—(P. O., Preston.)

Reference to this operation is hereby made to the mine Inspector's report of '94, since which time practically no work has been done, except a shipment of some cannel coal.

DUNLOW COAL COMPANY—(P. O., Dunlow.)

This operation, located 46 miles above Kenova was defunct shortly after the printing of the last report.

SPRING HILL COAL COMPANY—(P. O., Ferguson.)

Abandoned.

COALDALE MINING AND MANUFACTURING CO. —(P. O., Fleming.)

Abandoned.

CARVER COAL COMPANY—(P. O. Plymouth.)

Located at Plymouth, 20 miles west of Charleston, W. Va., on the Kanawha and Michigan R. R., and the Kanawha river. This operation works the Pittsburg, or Raymond City, seam, having at this point a thickness of 4 and one-half feet, being a species of the splint coal, used largely for domestic purposes, and mostly shipped by water. A spur track  $\frac{1}{4}$  mile long connects the drift with the main line of the R. R., having no incline, and a river tippie.

Having noted in my former report the annoyance and expense this company were being put to to drive through a serious fault, I am now pleased to state that this drawback has been overcome and being now through the fault, they have sunk a shaft about 75 ft., at which point they have erected a furnace, which is a decided improvement upon the old mode of ventilation. The general condition of the mine, both as regards the drainage and ventilation is good, and the management are conscientious in taking such steps



for the safety and comfort of men, as required by law. This operation is connected under the same management as the Mecca and Edgewater mines in the Kanawha Valley.

Superintendent, Jas. Carver; Mine Boss, W. H. Mease.

\* BANCROFT COAL COMPANY—(P. O. Bancroft.)

This operation, located 19 miles below Charleston, on the Kanawha and Michigan R. R., is working the Pittsburg seam, having a thickness of 4 and one-half feet, being shipped as a splint largely by rail for domestic purposes. This description of the company and its workings cannot be flattering, since on all of my visits, I found them negligent in the exercise of their duties as regards the condition of the mines, and when we consider that it falls often to the lot of the mine boss to act as trapper, water bailer, and driver simultaneously, we cannot expect any very flattering results in the good condition of the workings.

Thos. B. Bancroft, Superintendent; Mine Boss, Richard Entwhistle.

THE MARMET, SMITH COAL AND MINING COMPANY.—(P. O., Raymond City.)

Opened at Raymond City, 16 miles below Charleston, in 1865. This company have been in active operation since 1878, having had the good fortune to cause the death of but one employee during the last five years. The daily capacity is 20,000 bushels of lump, and a new opening is being made on adjoining property, which will increase this capacity about 7,000 bushels daily. Although shipping so extensively by the Kanawha and Michigan Railroad and river this company are agitating the feasibility of a connection with the Chesapeake and Ohio Railroad either by the construction of a branch line, across country, or by transporting their products up the Kanawha river to a point near where the Chesapeake and Ohio Railroad leaves said river, and elevating them to the cars of the said railroad. Among other changes and enlargements of this company is the late purchase of the Queen City Coal Company's plant and property, in which former working they are now pushing entries, preparatory to develop same to much larger extent than formerly. The Pittsburg seam, having a thickness of 5 feet, and often attaining 6 feet, is here worked. They have a slight draw slate which, when the coal is shot, leaves a good safe top, except in cases where they have a clay fault, which runs at an angle to the strike of the coal, and cutting through it, causes the top to cut, giving the company much trouble and expense. The general condition of the mine is good, the ventilation being effected by the means of a large furnace—with satisfactory drainage. Among other improvements at this plant is a large river tippie and appliances for the washing and cleansing of the slack. The mines are

connected with the railroad and river by a short line  $3\frac{1}{2}$  miles in length, with no incline.

Superintendent, Ed Schonebaum; Mine Boss, E. Hennings.

### Kanawha Valley Mines.

M. T. DAVIS AND COMPANY—(P. O., Montgomery.)

This operation, located on Morris Creek, a short line of the Chesapeake and Ohio railroad two miles long, operates both the No. 2 or gas seam, and the No. 5 or block. The latter being the upper mine, is reached by an incline of considerable extent. The coal, a block of 6 feet thick, often obtaining thickness of 7 feet, with good top and drainage. The company have erected and are almost ready to begin mining this coal by electricity, two Jeffrey cutting machines being on the site at my last visit. The lower mine, called Eureka Colliery, is of greater extent, working the No. 2 gas seam of  $4\frac{1}{2}$  feet thickness, being equipped with a system of rope haulage, and ventilated by means of a fan, with fair results when properly looked after, which I regret was not the case on my last visit. The top, consisting of a blue slate, cuts badly and is very treacherous.

Superintendent, M. T. Davis; Mine Boss, Geo. Frazier.

CARVER BROS.—(P. O., Montgomery.)

Also located on the Morris Creek railroad, a short distance below the Eureka Colliery; this operation works two mines in the Gas seam, located across the Hollow from one another. landing the coal on the same tippie, where the seam has a thickness of coal is  $4\frac{1}{2}$  feet with a slight parting. The daily capacity of the two connected mines is 600 tons per diem, but owing to the dullness of the market and the scarcity of men, they can not furnish this amount. The ventilation by means of a Thayer fan is only fair, caused by the large extent of territory this fan is required to operate, and the lack of sufficient stoppages on the entries. The drainage is satisfactory.

Superintendent Jno. Carver, Mine Boss J. Taskin.

COAL VALLEY MINING COMPANY.—(P. O. Montgomery.)

The above company operating the Coal Valley or Gas seam, having a thickness of 50 inches, is located at the town of Montgomery, and consists almost entirely of robbings in which they are greatly annoyed by the water which seeps through the old workings of the Edgewater and Crescent mines. As is the case in nearly all the mines consisting of robbings, with no direct air ways, the ventilation is only fair.

Superintendent, J. W. Straughan; Mine Boss, W. Addamson.

## W. R. JOHNSON—(P. O. Crescent.)

This operation located at Crescent a short distance above the town of Montgomery, works both the No. 2 or Gas and the No. 5 or Block coal seams, the former being from 55 to 60 inches, and the latter often attaining 7 feet of clean coal of unusual pureness. This coal is extensively used by the Chesapeake and Ohio R. R., in their passenger engines, and a coaling station is located in front of their coke yard. In regard to the upper seam, which is 685 feet in vertical elevation above the gas, or No. 2 we may note that the territory now being worked lies near the summits of the hills, and having but light cover, they are much annoyed by surface seams, having several rooms now drowned out, and will at once begin to take necessary steps for draining same for work. The crop being convenient for new drifts the ventilation is by natural means and is good. Unlike most of the coals of this territory which have an inclination of 3 ft. per 100 ft., this seam dips 15 ft. to 100 ft. at this point. The No. 2 seam worked below consists of more extensive workings, being now principally pillar workings, with treacherous top, requiring much timber. A system of endless ropes brings the coal to the drift mouth on the West side. The ventilation by means of a Crawford and McCremmon fan, which Mr. Bartlam has so arranged as to be reversible, gives good results, although, I am advised, that at times when the wind is blowing hard from the N. W., they are then annoyed by currents of impure air forced up from the old workings of the Coal Valley seam below. The drainage is satisfactory. The outside plant, equipped with crusher ovens and conveyor's is quite elaborate and the coke products are in great demand for furnace combustion.

Superintendent, T. A. Bartlam; Mine Bosses, Rich Howe, John Abbot.

## CARVER BROS.—(P. O., Edgewater.)

This company located at Edgewater, two miles above the town of Montgomery, operates the three seams of coal, known as the Eagle or No. 1, being a coking coal of 4 feet thickness; the No. 2 or gas seam, being  $4\frac{1}{2}$  feet thick, and the Block or No. 5, being 6 feet thick and in demand as a domestic fuel. The No. 5 or block is mostly crop and surface work, being near the top of the hills and having light cover. The ventilation is good and natural, and the drainage by reason of the light top and surface seams is only fair. In the workings of the No. 2 or gas seam we have the connection of this mine with those of the same operation on the Morris Creek side and the ventilation of both mines by the one fan, which, though doing good work, is overtaxed by the territory, which it is called upon to air. The top both in the new and old workings is treacherous and requires constant watching. The general drainage is good. In the workings of the No. 1 or Eagle seam we can only give a fair report both as to the ventilation, by furnace and the

drainage. All mines and their respective inclines connect with the same tipple, from which shipments are made both by rail and water.

Superintendent, Enoch Carver; Mine Boss, Jno. Carver.

WYANT COAL AND COKE COMPANY—(P. O., Eagle.)

Located at Eagle station, this company is operating both the No. 1 or Eagle and the No. 2 or gas seam. The former vein being at the old site has a thickness of 52 inches, with light parting of boan. By reason of the superior quality of coke produced from this seam, the entire output of the mine is used in the ovens and when placed on the market constantly commands a superior price. The territory developed by this mine is of great extent, having a main entry of about one mile. The top when few inches of draw slate is down is quite good and in some of the old workings has stood for several years, without riding or falling. The gas or No. 2 on this end of this property has not yet been developed. At a point one-half mile above Eagle station this same company is operating the No. 2 or Diamond seam, called thus for the mine here, where the seam attains a thickness of five feet five inches, holding its own throughout most of the workings. The company have just completed a system of rope haulage which will greatly facilitate the work and add much to the increase and economic mining of the coal. In this connection it may be well to note that the Eagle mine is well equipped with ovens, coal and coke crushers. The last report noted that the company was expecting soon to hole out on the Armstrong side of their property and would have effected this had it not been that the work was much retarded by the wretched top met with in the entry, and the time necessarily lost in timber and rendering same safe. The ventilation by means of a furnace is only fair now and will be good when above opening is effected. Drainage good.

Superintendent, William Wyant; Mine Bosses, Eagle, Thos. Loyd; Diamond, Jno. Bostick.

ST. CLAIR COMPANY—(P. O., Eagle.)

The above company operates Nos. 1 and 2 seams at a point a quarter of a mile above Eagle, having one tipple both for railroad and river shipments. No. 1 seam being mostly used for the manufacture of coke, producing some of superior quality. The coal from No. 1 mine is transferred from the pitmouth to the crusher by means of an iron pipe eighteen inches in diameter, whence it is supplied to the coke ovens. It is in mine No. 1 that the company has installed their new electric plant for the haulage of coal. The ventilation is effected by means of a furnace and would be good, were the air ways and brattices kept in good condition. This mine is now running at almost its full capacity, and the management is striving to improve the general condition of the workings. The



top is quite good and the drainage fair. My report on the upper, or No. 2 mine, can not be favorable as I am sorry to note that the furnace was located most adversely to proper ventilation, having been placed at a point having lower elevation than the drift mouth and not having the power necessary to fully ventilate the workings. The top is also treacherous, and seems to cut more in the narrow work than in the wide: which is noted in one other place in this district, viz: the Goodwill Coal and Coke Company, at Goodwill, Mercer county, W. Va.

The No. 1 seam shows four feet, and the No. 2 five feet thickness. The company are aware of the defect in the ventilation of the furnace and speak of putting a fan at a point south east of the present drift mouth.

Superintendent, M. T. Davis; D. B. Howery, Bank Boss.

#### FOREST HILL COAL COMPANY—(P. O., Eagle.)

The above company operates the No. 2 or Diamond seam, one and a-half miles above Eagle, and was formerly under the supervision of Major William Sharpe, and had suspended work during most of the interval covered by this report. This property is now in the hands of the receiver.

#### W. R. JOHNSON & COMPANY—(P. O., Eagle.)

This company operating the Block or No. 5 is a feeder of the Kanawha and Michigan R. R., located nearly opposite the Forrest Hill Company. The coal at this point is 4 to 5 feet, and is handled over an incline 2,250 feet in length. It is a new operation and up to the time of this report had shipped little or no coal.

Superintendent, Levering; Mine Boss, Wm. Boyd.

#### THE MOUNT CARBON COMPANY, L<sup>T</sup>D—(P. O., Powellton.)

Located on the short line five miles from the main line of the Chesapeake & Ohio R. R. on Armstrong Creek, this company is one of the most extensive in the Kanawha field, having an elaborate plant of 202 ovens, with crusher, &c. At their present opening where they are working the gas seam, they have 6 feet of coal, with a parting of about four inches. The railroad, about 1½ miles long to this opening was completed about the time of my last report. Much of the output is coked, and as the company have their own barges and tow-boat, they are extensive shippers by rail and water. The furnace not now being needed, is abandoned, and natural means keep up the necessary ventilation. The drainage is also satisfactory.

Superintendent, D. T. Evans; Mine Boss, J. I. Absolam. Managing Director, Evan Powell.

## THE GREAT KANAWHA COLLIERY COMPANY—(P. O. Mt. Carbon.)

Located at Mount Carbon Station, this company is operating the Gas or No. 2 seam at two openings, one the Mount Carbon mine, the other the Digby,  $\frac{3}{4}$  mile above. At both of these places the coal shows up 4 feet, with from 2 to 4 ins. parting. The lower or Mount Carbon workings have for some time been fitted with a fan, but on account of the difficulty of procuring water, the company have neglected running same, and I cannot give a favorable report of the present ventilation, which in some parts of the mine is good, while in others is not what it should be. This company have just erected an electric plant, and the management advise me that it is and has been its object to place a fan in what is known as Buster Hollow, as that it will ventilate the workings of both mines, and that it will be run by the electric plant just now put in operation. I trust that the company may find it to their advantage to act as above, that I may not have to call their *particular* attention to the matter again. The outside plant is equipped with ovens, crushers for coke and coal and a river tippie, enabling them to ship both by rail and water.

Superintendent, Symington Macdonald; Mine Boss, Jno. Holmes.

## New River Coal Field.

## GAULEY MOUNTAIN COAL COMPANY—(P. O., Ansted)

Passing from our consideration of the Kanawha Coal Field and its measures to the New River Field, we first encounter at a point between Cotton Hill Station and Hawk's Nest near the noted Hawk's Nest rock the first appearance of the lower coal measures, which, as the Sewell seam, passes under the river at this point.

The first point at which it is worked is on the Ansted's short line about a quarter of a mile from Hawk's Nest station, by the Hawk's Nest Coal Company. Three miles up the said short line after passing the town of Ansted where are located the companies' offices, we find the mines of the Gauley Mountain Coal Company, at the head of the West Lake Branch of Mill Creek. This is the largest operation in the New River coal field, having a daily output of 1350 tons and a gross capacity of nearly 2,000 tons per diem. Even during the strikes the situation of the company as regards the standing contracts, its connection with the railroad company, coupled with the friendly feeling existing between the operators and the miners, the work was scarcely retarded at all. The mines are equipped with the most modern machinery. The one hundred and two ovens being supplied with crushed coal and charged by tail rope system. A short incline connects the tippie with the drift mouth. The workings properly consist of two distinct mines. Mine No. 1 being the older of the two, is located on the left hand side of the hollow, having been formerly worked by the old Hawk's Nest Coal Company, which had practically worked out the



territory adjoining the present drift mouth. The present company has extended the workings entirely through the Gauley mountains and with their locomotives are hauling coal from the Gauley side, and it is understood that they will also make new improvements up Rich Creek in connection with the Gauley railroad.

The ventilation, effected by means of a first class fan, is eminently satisfactory and no complaint can be entered against the drainage, but as some of the new work must be done on the dip, I will await with interest the action of the company for handling the water thus formed; so far, indeed, on all my visits I have found very little for unfavorable comments. In the robbings, where casualties are more liable to occur, the management has retained an experienced under foreman. The company are also extensive shippers of coke, and it may be noted that the remaining output of the mines are used for fuel for the Chesapeake & Ohio Railroad. The mine on the right hand side of the branch, or No. 2, is of newer development. The lower Kittanning or Ansted seam having a varying thickness of from seven to twelve feet is here worked. In those parts of the mines where the thicker portion of the seam is worked the miner separates such impurities as occur. While in those portions of the workings where five feet of the seam only is taken, such yardage is paid as will compensate for the different heights of coal. The miner is paid 25 cents per ton over scales.

Superintendent, William N. Page; Mine Boss, John Straughn, with assistants.

#### DEITZ & MASTERSON COAL & COKE COMPANY—(P. O. Hawk's Nest.)

This company operates a lease at Gaymont, one mile east of Hawk's Nest on what is known as the Holt and Snyder land. The workings are in the Nuttallburg and Sewell seam, which we mentioned as passing under the river near Hawk's Nest, and which, at this point, attains a thickness of three feet two inches, having a good top and lumping unusually well.

This is a new company working on the old Gaymont lease. The ventilation by means of a furnace is fair, as is also the drainage.

Superintendent, T. A. Deitz; Bank Boss, J. W. Masterson.

#### THOMAS COAL COMPANY—(P. O., Sunnyside.)

Located at Sunnyside on New River. This is the second operation working the Sewell and Nuttallburg seam on New River, having also a lease on the above mentioned Holt and Snyder land. In my former report you will notice that I have stated that the ventilation by means of their furnace was poor; on my first visit I found fire damp accumulated on the main heading caused by neglecting to place break-throughs sufficiently close to one another to produce sufficient air currents. Leaving instructions that the mine boss should allow no men to visit that portion of the mine at any time until he had personally examined the workings in that locality. On

another of my visits I found that they had been neglecting the furnace on account of the slack run. To this neglect also, I called their attention, and assured the company that on my visit among them, it was most distasteful to me to be forced to bring such matters continually before them. While I can not absolutely complain of their drainage, I think some little attention bestowed thereon would be highly beneficial.

Superintendent, D. P. Bishop; Bank Boss, A. S. Pike.

W. A. BURKE COAL COMPANY.—(P. O., Elmo.)

The above Company also operates the lease of Holt and Snyder, located at Elmo, one mile west of Fayette Station. The Nuttallburg or Sewell seam, having a thickness of 36 inches, is here worked.

This is comparatively a small operation, but in prosecuting their work, they have driven quite a ways under the mountain and have quite a distance for their air to travel. The drainage and general condition of the mine are fair. As before noted, a great portion of the output is shipped to private parties, having quite a reputation as domestic fuel, and possessing unusual lumping qualities. It is largely used in Staunton, Va., and in the adjoining towns. Like all of the New River mines, an incline connects the drum house with the tippie. Their side track has been lately extended and now connects with the main line of the Chesapeake and Ohio Railroad near the Company store.

Superintendent, J. W. Parrish; Bank Boss, Thos. W. Burke.

FAYETTE COAL AND COKE COMPANY—(P. O., Fayette.)

The Fayette Company, operating on a lease from J. M. Blume, is one of the oldest operations on New River, having been opened up by Wm. Masters in the seventies, from which time it has been a successful operation. The Nuttallburg seam of three feet is worked at this point. About the time of my previous report, the strikes, slack-run and discouraging outlook in the coal business, combined to cause the company to let the general condition of their mine run down. And by reference to the previous report you will note that I laid particular stress on the antiquated practice of using canvas doors for brattice, which at best are exceedingly poor stoppages for air and must be carefully looked after to be of any service. On my last visit to these workings, the general condition was vastly improved. The furnace had evidently been renovated, the stoppages tightened and many indications of care and forethought on the part of the management.

Superintendent, J. A. Boon; Bank Boss, Val Bachman.

NUTTALLBURG COAL & COKE CO.—(P. O., Nuttall.)

The above operation, located about three miles above Fayette

Station, was the first mine opened on New River, having been started by Mr. John Nuttall, the veteran coal operator, who shipped the first coal over the Chesapeake & Ohio after its completion in 1873. From which time it has been in continuous and successful operation.

The company is working the seam of coal named after the operator which at this point is 42 inches, but which often does not exceed three feet. The entries are long, in two cases, being considerably over a mile. The extent of territory being operated exceeds that of any mine in the third district of West Virginia and I am much pleased to state that in all my visits before and since my last report, the condition of the mine, both as regards ventilation and drainage, is satisfactory. This lease is from Mr. John Nuttall, to the Nuttallburg Company and by reason of its location and extent, it is operated by these unusually long entries and air courses with the rooms turned off of each. Each of the sets of entries has its own separate furnace and a man employed constantly to fire the furnace. It may be interesting to note that not a pound of coal shipped from this mine is hauled less than three quarters of a mile and that there are men employed at present by the company who have been with them over eighteen years. One man having started an entry seventeen years ago, which now bears his name. These mines have been running quite steadily on a private order for the last year.

Superintendent, W. H. Holland; Bank Boss, Philip Gray.

#### KEENEY'S CREEK COAL AND COKE CO.—(P. O. Nuttall.)

This mine, located at the mouth of Keeney's Creek, one mile above Nuttall, is also a lease of John Nuttall, and under the same management as the last mentioned mine. The workings are not quite so extensive, having been started later. But even now, the long entry extends to the crop on the Keeney's creek side at Contrary creek, near the lease of the Boone Coal and Coke Co. The coal in this mine ranges from three foot to forty-five inches. The furnace formerly used for ventilation is now in disuse, since the outlet on Keeney's creek being a greater elevation than the drift mouth, affords an excellent current at all times. While the mine is somewhat cut up and not in the condition of the old Nuttallburg bank, I have no particular complaint to make.

Superintendent, W. H. Holland; Bank Boss, J. W. Small.

#### THE BOONE COAL AND COKE CO.—(P. O. Winoma.)

The Keeney's Creek branch of the Chesapeake and Ohio railroad, beginning at Keeney's, on the main line, runs up Keeney's creek for a distance of eight miles, having six mines and taking quite a prominent part now in the supply of coal for the agency on New river. The Sewell seam exists here in somewhat thinner strata, but of unusual cleanness. And its quality for lumping well is

readily acceded. Going up the branch line, we first find the operation of the Boone Coal Co., being a lease from John Nuttall and lying directly back of the Nuttallburg and Keeney lease. This mine has been in active operation a little less than two years and is working the Sewell seam which at this point is forty inches. A tramway of some little extent connects the drift mouth with a short incline, whence the coal is run to the tippie. Owing to the location of lease, they were unable to open the mine directly on the main line of the railroad, but were unavoidably forced to construct the said tramway in order to get behind the coal and develop the territory on the raise of the coal.

The ventilation by means of a furnace is fair as is also the drainage.

Superintendent, W. F. Boone; Mine Boss, Wm. Crickmer.

#### BALLINGER COAL AND COKE CO. — (P. O. Nuttall.)

Located on the branch line of the railroad, about a mile above Boone's, we find the Ballinger Coal and Coke Co., operating two mines in the Sewell seam, it having a thickness here of about four feet. No. 2 mine, being the first one met with on ascending the railroad, has just begun shipping coal and nothing but the drift mouth and a little entry have been completed.

Mine No. 1, about half a mile above the new opening was the first shipper of coal on the creek. Till very recently, there were three entries driven to this mine and by reason of their not being connected, the air was quite tight. Every effort was made to unite the several portions, and I am pleased to say that at the time of this report the air has free circulation from section to section. Openings have been made at the crop in several places and an air shaft has been sunk. Like all new mines they have had their difficulties to overcome, but as the same parties connected here were interested in the development of Nuttallburg, I presume that they will take as much interest in the prosecution of the work here, as at the parent mine.

Superintendent, Geo. H. Holland; Mine Boss, John Christian.

#### SMOKELESS COAL COMPANY.—(P. O., Winoma.)

This mine, opened by William Masters before the completion of the Keeney's Creek branch, had a change in its management soon after the first coal was shipped. Messrs. Masters and Son having transferred their interest in this, a Nuttall lease, to Messrs. Campbell and others of the Beechwood Company, on New River. Quite an extensive incline connects the drum house with the tippie. The same Sewell seam is worked here as at the other places, having a thickness of forty inches and when loaded on the cars, the unusual tendency of the coal to lump is very marked.

The ventilation, by means of a furnace, is quite good. The cross entries, though turned on the correct magnetic degree for mining



on the raise, were found to make water and have been turned more to the raise, now affording satisfactory drainage. The top is of slate, peculiarly stratified with bands of hard flint.

Superintendent, Jno. C. Campbell; Mine Boss, Wm. Hall.

ROTHWELL COAL COMPANY.—(P. O., Nuttall.)

This Nuttall lease, being about six miles from Nuttall, extends from Keeney's Creek across to Bracken's Creek, waters of Meadow River. The general condition of the mine is satisfactory. The ventilation, being effected by means of a furnace and all the workings being to the raise. The coal raises quite rapidly from the drift mouth in and I understand that it is the intention of the Company to make use of rope haulage, endeavoring to get sufficient momentum on the loaded trip coming out to return the empties back to the parting. This Company were ready to ship coal immediately on completion of the railroad to their mines and rapidly increased their output to two hundred and fifty tons per day. Though a comparatively small plant, the tippie and incline are carefully constructed and little trouble is encountered in quickly handling the coal. The top being sandstone, they resort to shooting the bottom in the entries. The coal averages three feet nine inches, lumping well and being unusually free from sulphur.

Superintendent, Fred P. Rothwell; Bank Boss, Charles Higgins.

J. F. CAVENDISH COAL COMPANY.—(Postoffice Lookout.)

This is the last operation on the Keeney's branch, it being also a Nuttall lease, but as the Company have shipped scarcely any coal and but few men are working therein I did not deem it necessary to make an inspection trip. The coal lumps well and is thirty inches thick.

Superintendent, J. D. Cavendish; Mine Boss, Thos. Stead.

NEW RIVER COKE COMPANY.—(P. O., Caperton.)

Passing from consideration of the Keeney's Creek operations, we find the New River Coke Co., one of the oldest operations in the territory, working the lands of its president, M. Erskine Miller. In considering these mines, we must divide our attention between the old one, No. 1 and the new drift, No. 2, opened some time ago across the hollow. In No. 1, the Nuttall or Sewell seam of a thickness of four feet is practically worked out. Since the entries were driven entirely through the hill and the bulk of the coal from this section comes from pillars.

Connected with the incline, the Company have resorted to rope haulage, whereby the momentum of the loaded car descending the incline brings the mine car to and from the drift. The works were of a very extensive scale, since the company have been operating almost since the railroad first developed the territory. The

ventilation by natural means is only fair and I presume the great trouble arises from the fact of there being so many break throughs in the old work that leak and require careful attention.

The new mine, working the same seam with practically the same thickness of coal, has only developed a small territory. In connection with the ovens, 133, which are charged by a locomotive, the company have made substantial changes on their tippie, greatly on account of the supply from the mine on the south side being necessarily stored in the same tippie. The greater part of the output is coke, as the product of the ovens has considerable reputation and seems to find ready sale, the ovens being charged by a locomotive.

Superintendent, G. H. Caperton; Mine Boss, Thos. Gosnay.

#### WILLIAM BEURY, COOPER AND COMPANY—(P. O., Caperton.)

This mine, operating at the same station as New River, is really the completion of the old Beury, Cooper Company, and nothing now remains, except a few rooms and the robbing of a few stumps and the chain pillar. The work is now being prosecuted under a sub-contract and so few men are employed that an inspection of the same is hardly deemed necessary. The Sewell seam is here worked and has a thickness of four feet, two inches.

#### LONG DALE IRON COMPANY—(P. O., Sewell )

Among the most prominent operations, working daily, we find the Longdale Company, with the manager's office at Sewell Station and chief store and mines at the terminus of a nine mile short line extending from the Chesapeake and Ohio railroad to Cliff Top.

All the output of the mines with the exception of that used for domestic purposes is used in the manufacture of coke, which is prepared in its 193 ovens at Sewell and shipped to the furnaces at Longdale, Va.

The little village at Cliff Top is quite a model mining town. The Company's store, quite large, and the workings of the Company are quite extensive. The Sewell seam, worked at this point, with a thickness of thirty two inches, has honeycombed quite an extensive territory, and at all my visits, I found the Company endeavoring to keep its mines within the requirements of the law, both as to ventilation and drainage. A furnace six by eighteen feet located quite a distance from the drift mouth by proper attention and tight brattices, maintains a steady air current. It seems strange that though the top in many places is quite good, yet when the mining is done about on the strike of the coal, the slate persists in cutting and in order to render it safe for the employees, the Company is forced to cross-timber it, causing much trouble and expense, but I am glad to say they do not pile the gob in the entry.

The entries are run to centers, which is rather unusual in some of the low coal veins along New River. And I may mention in



this connection that carelessness in regard to straight entry and the allowing of rooms to break into one another has been the reason why so many mines are not and have not been satisfactorily ventilated. It is almost an impossibility to ventilate a mine which has been all cut up and where brattice after brattice is needed.

Superintendent, J. A. McGuffin; Mine boss, Thos. Burke.

#### FIRE CREEK COAL & COKE COMPANY.—(P. O. Fire Creek.)

This Company, located at Fire Creek, three miles above Sewell, ranks among the pioneer mines of the region, having been one of the very first to ship coal over the Chesapeake and Ohio railroad, after its completion in 1873.

The ventilation, effected by a fan, gives good results, while drainage is also satisfactory. The Fire Creek seam, taking its name from this operation, having a thickness of three feet two inches, is here worked, while I understand that the company contemplate developing the upper or Sewell seam, which on this property shows up four feet in thickness. Like several other mines, under the same head management, this operation has quite a large private order business, and by reason of its coal lumping with unusual readiness, it has gained quite a reputation as a domestic fuel and is mostly shipped to concerns in the east. It is in the workings of this mine that we find rope haulage working most favorably. The main entry, I presume, is over a mile long, much of which distance is covered by the rope and arrangements are made by which connections are attached to the main entry haulage and coal pulled from the cross entries. The trips run at the rate of from five to six miles an hour. About next Christmas, they expect to drive their main entry to daylight at the further end of the property, which is owned and controlled by the stockholders of the Fire Creek Company. A locomotive and quite a length of road are used between the drift mouth and the tippie. The coke manufactured by the company has quite a large per cent of fixed carbon and finds ready sale.

Superintendent, G. H. Caperton; Bank Boss, David Stoddart.

#### THE CENTRAL COAL COMPANY—(P. O., Fire Creek.)

Located a half mile above the<sup>s</sup> Fire Creek Company and operating property adjoining. This mine works the Fire Creek seam, having an average probably of four feet, being more or less subject to rolls, in some of which cases the coal tails out to nothing, and in some places is six feet.

The coal, like several of the neighboring companies working the same seam, lumps well and seems especially adapted for the firing of stationary engines and for manufactories and domestic purposes.

Here also we find the rope haulage used, but the natural formation of the stratum has so adapted the grades of the main entry, that the loaded cars descending to the top of the incline return the

empties back to the parting in the mine. The ventilation and drainage are both effected by the roads and on this account the mine is considerably cut up and its general condition not such as I would desire.

Superintendent, J. R. Seal ; Mine Boss, P. J. Riley.

WILLIAM BEURY, COOPER & CO.—(P. O. Beury.)

This Company, located one mile above Fire Creek, at Echo, operates the upper or Sewell seam, and the lower or Red Ash seam, employing the same tippie for both and a continuation of the same incline for the upper mine.

The new opening in the upper seam develops rather a small territory being mostly crop near the top of the mountain, the coal being about four feet thick. Like most mines with light cover, they are considerably annoyed in wet weather by water and the ventilation, acquired by natural means, is rather uncertain and poor. The lower mine, operating the Red Ash or Fire Creek seam has been very extensively worked, and the Company has just completed an extensive and elaborate system of rope haulage, which with the long hauls they have to contend with, makes the handling of the coal much more profitable and satisfactory. The seam at this point abounds in rolls and faults and in quite a number of instances and the Company has often been forced to drive long distances with only a slight showing of coal. On one of my visits they were almost daily expecting two entries, driven from far distant points, to connect and as usually the case in such instances, the ventilation was far from satisfactory; however, since then, the entries have headed, enabling the fan to do better work.

Twice I visited the mine when the fan was broken and idle, and I fear that the management do not give the ventilation of the workings proper care and attention. The drainage was quite good. This mine is a notable instance of faulty coal and work cut up by lack of centers, making the ventilation to be sluggish. The tippie, under construction some time ago, is not yet completed.

Superintendent, J. L. Beury; Mine Boss,

DIMMOCK COKE & COAL COMPANY.—(P. O., Thurmond.)

This is another of the Beury-Cooper mines, situated one mile west of Thurmond, in the bend of New River, on the land of the Beury brothers, where they are operating the Fire Creek or Red Ash seam, having an average thickness of three feet eight inches, while in the new heading it attains a height of five feet. On my first visit to this mine, they had just driven for quite a distance through a fault, which in some places was entirely devoid of coal and in the headings the air was very tight. The object that the Company then had in view, was the driving of a cross entry off the main and placing a furnace at that point, which would be more advantageous in the ventilation of the new workings. They

were delayed greatly by the strike and water, which poured into the face of the working, forcing them to abandon the point at which they had contemplated driving out. By double shifting the entry and working the force also on the outside, they forced the entry through to daylight at another point and since that time the ventilation has been vastly improved.

The furnace formerly had a pull of two and a half miles before it returned to the exit. The lower portion of the mine is now being robbed and the company have placed a system of rope hauling in the main entry, greatly aiding them in the handling of the coal. Their first intention was to put on a locomotive for an outside haulage and they had graded the trainway for same, but for some reason altered their plan. The ventilation, at present, is quite good and the drainage fair but the top is treacherous and gives much annoyance.

Superintendent, W. H. Thayer; Mine Boss, George Moran.

#### BEURY COAL AND COKE COMPANY—(P. O., Stonecliff.)

This company, working at Stonecliff, one mile east of Thurmond, operates both the upper and Sewell seam, averaging about four feet in thickness and the Red Ash or Fire Creek seam, averaging three feet.

This mine is another one of the original New River operations, which, on account of the rolls in the coal and the lack of careful engineering in the past, has been badly cut up, and the management now have much trouble in keeping up brattices and preventing leakages. And for this reason, the ventilation of the mine varies greatly, being fair in some portions of the mine in others poor. The workings in the upper seam are connected with those in the lower by a continuation of the incline and by a mile of tram road and consists mostly in crop workings under light cover. I was forced to complain of the ventilation up here, as they trusted too much to forcing daylight holes at different points of the crop. The top, also, is none of the best. The lower mine, as stated above has been badly cut up, and whereas the ventilation is poor, I do not see where they can very well improve it without great labor and expense.

On the right of this opening, there is a second called the tunnel mine, in which the main entry has been driven to the far outerop and the draft of air caused by the difference in the altitudes, is sufficient to ventilate a territory of twice the extent we have here.

In one of my former reports I spoke of the poor ventilation in Carter's entry, where break-throughs were needed and where the work was so badly off centers that the pillar had increased in thickness to such an extent that the time required to drive the needed break-through was too much for the proper ventilation of that section of the workings.

The drainage is fair. I learned that the coal is quite hard, lumping well and that some time back when a number of cars were

shipped from the different collieries and a few selected as picked specimens, this company furnished by far the largest number.

Superintendent, O. C. Kubach; Mine Boss, W. G. McDaniel.

BEECHWOOD COAL & COKE COMPANY.—(P. O. Claremont.)

Located at Claremont Station, this company operates two mines on the lands of the Beury Brothers, called Beechwood or No. 1 and Keystone or No. 2, working the Fire Creek seam, averaging three feet ten inches. The former is the original opening of the Company and has developed a large territory, which like several of the upper New River mines has been badly cut up and the Company have been at much trouble and expense of late in tightening up the brattices and keeping the haulways clear of loose gob. Sometime previous to the compilation of this report, there was a change in the direct management of the Company and when last there, I found them entirely renovating the mine and endeavoring to bring its general condition up to the requirements of the law. They were at that time driving a fan entry from a point near the present old drift to the crop and assured me that they would place in working a new fan, which has laid on the site for nearly a year in disuse. The ventilation in neither of the mines is what it should be, more especially that portion adjoining the Keystone mine. I am informed that some of the old works of the Alaska Coal and Coke Company, were tapped by entries from the Beechwood Company and the outflow of water was of considerable annoyance. Immediately to the left of the drift mouth of Beechwood mines are some old workings, consisting of pillars, which are now being drawn under a sub-contract. From the parting of the main entry, a system of rope haulage lands the coal at the top of the incline.

Superintendent C. C. Beury; Bank Boss, R. B. Hanna.

ALASKA COAL AND COKE COMPANY—(P. O., Claremont.)

This operation located at Alaska, a short distance above Claremont, its postoffice, operates the Fire Creek or Red Ash Seam, which at this point attains an average thickness of 4 feet 2 inches, having a parting of boan from  $1\frac{1}{2}$  inches to 3 inches near the middle of seam. As the workings have been enlarged they have made three openings, one being at the head of the incline and about worked out. This is the section immediately adjoining the Beechwood and Keystone mines and from whence the outflow of water into the latter occurred. Another drift connected with this by a tramway of considerable length, affords the bulk of the output, from which the coal is hauled by a locomotive. A few hundred feet beyond along the outcrop we have the new opening which has not as yet opened up much territory, and the grade to which is so steep as to render the locomotive useless. The ventilation in the old No. 1 mine is good as is mostly the case where no new work is in progress, and pillars being taken. In No. 2 opening I was not



well satisfied with the ventilation, as I found them too prone to neglect the breakthroughs, and as will be noted by referring to my last report, I have been forced to call their attention to this defect before. The mine and their 20 ovens run quite well and I am informed that their coal is in demand by reason of its superior lumping qualities. Lately they have replaced the trestle at the lower end of the incline, by a new and heavier structure.

Superintendent, George Lawton; Mine Boss, W. M. Brown.

#### STERLING COAL AND COKE COMPANY.—(P. O., Coit.)

The above Company, operating the last and most eastern lease of the Beury Brothers' estate, is located at Coit, about  $2\frac{1}{4}$  miles above Claremont, and is working the Fire Creek or Red Ash seam, which at this point is about 34 inches with no partings, and like many coals in this vicinity, lumps unusually well. Located at the top of the incline is the old drift which is now mostly worked out, and where they are employing but few of their men. On my last visit I found the head of the last left hand entry taking off the main in a very poor condition. Here they were endeavoring to force the workings to the crop, and being too far from the furnace to be in the least affected by it, the air was both foul and tight; moreover, being on the dip, the men were working in water. This state of things is unnecessary and I left instructions with the superintendent to locate the entry on the crop and at that point where it would hole to daylight, to immediately start a force of men drifting in to meet the miners from the inside. This would hasten better drainage and give the needed ventilation. Like several of the mines heretofore mentioned in this report, most noticeably Echo and Stonecliff, this operation has neglected the proper attention to the mining of coal and has cut the mine up so badly that it would be a matter of study and expense to even ventilate it respectably. A system of rope haulage is employed to bring the coal to the drift mouth. Connected with the above opening by tramways are two others, which two the company are endeavoring to connect, and where somewhat more attention is given to the condition of the mine. They tell me that the presence of faults and rolls is responsible for the poor condition of the workings, but even though we grant this, I can not see why such things should occasion the persistence of leaky break throughs and gobbed air ways. There are some mines which are in such a condition that nothing but a cessation of work and a complete overhauling would put in satisfactory repair, and it seems that some operations will force me to resort to this plan of procedure.

Superintendent, J. F. Jones; Mine Boss, E. J. Robertson.

#### QUINNIMONT COAL COMPANY.—(P. O. Quinnimont.)

This company located at Quinnimont, 375 miles west of tidewater at Newport News, have made many extensive improvements, includ-

ing the development of the territory back of their former workings, where the Quinnimont, supposed to be also the Fire Creek seam, is worked, having in the old mine an average of three feet, and the new openings of 50 inches, clean coal.

To work the old mines the company employed quite a long incline and a short spur track from the main line of the Chesapeake and Ohio R. R. Lately they have extended this siding for a distance of three and one-half miles, put in an electric plant from the general electric company, and have erected an elaborate tippie, having improved screens and appliances patented and designed by the superintendent, D. C. Boyce, Esq. Back of or extending Northeastward from Quinnimont we have an extensive area underlain by the Quinnimont and New river seams of coal, but continuing eastward along the C. & O. R. R., we found the coal measures rising rapidly, and inaccessible for economic development save by long inclines and branch railroads up the several creeks. Superintendent, D. C. Boyce, Mine Boss, Jno. McIntosh.

#### ROYAL COAL AND COKE COMPANY—(P. O., Prince.)

Continuing our discussion and passing across New River, we find our only operation in Raleigh county, the Royal Coal and Coke Company. This operation is working its own property opposite the Stretcher's Neck Tunnel, and having its tippie and side tracks on the north side of New River, it transfers its coal from the drift mouth by means of a connected system of buckets thirty-eight in number and each having a capacity of one-half ton and weighing when empty 700 pounds. The span from the tippie on one side of the river to bent on opposite is over 700 feet, and from anchor to anchor of rope is 2,300 feet, having three safety brakes to drums, on which a jet of water is constantly allowed to play. The mine consists of two openings one at the head of the drum house being the more extensive. The Red Ash or Fire Creek seam having a varying thickness of from  $2\frac{1}{2}$  feet to  $3\frac{1}{2}$  feet is worked. On one of my last visits, I was surprised to find that a slide had occurred, which had filled the furnace and rendered it useless—thereby causing the ventilation to be poor. On my next trip I found this defect remedied, and while the ventilation was fair, I could but note and comment upon the extensive and injurious use of a mixture of black strap and kerosene, or coal oil, used by the drivers in their large lamps. This caused much smoke and was an annoyance to the miners, and I urged the superintendent to compel its disuse by a penalty of discharge. The inferior grades of miner's oils now placed upon the market are deleterious enough without resorting to those mixtures of most volatile and fumigacious carbons. In what is known as the Rushford's entry I found them using the old canvas brattice, for conveying the air currents to face of workings. It may be here noted that by reason of the heavy grade on the main entry, a  $\frac{5}{8}$  inch wire rope is used to haul coal to the last parting. The opening No. 2 on the left side of the property is of more



recent development and the condition is about the same as old portion of the mines. I trust that this company will see it to their advantage to place in a fan. The drainage is quite good.

Superintendent, James Kay; Mine Boss, Jno. Lang.

### Loop Creek Territory.

Shortly after the completion of the Ohio Extension of the Norfolk and Western railroad, the Chesapeake and Ohio railroad, caused preliminaries to be run up what is known as Loop Creek, with the intention of constructing a branch line up same. As far back as 1874, there was known to be a vast and valuable deposit of semi-bituminous coking coal of high grade and considerable thickness, underlying the Fayette and Raleigh plateaus and extending thence southwesterly and exposing its croppings in what is now known as the Flat Top coal field, acknowledged to be the most regular and extensive coal deposits of our country. The great conglomerate in which the New River coal are found, first presents itself as we travel the C. & O. railroad westward, near Hinton, and forms usually the crests and tops of the hills facing New River and disappears between Cotton Hill and Kanawha Falls, thus forming the New River canons for a distance of 60 miles. As we go back into the country of the Upper Loop Creek, on each side a new range of hills soon appears, and in these case will be found more coals. In the vicinity of the old McCoy farm, where the Collins Colliery Company are now operating at Glenjean was originally a country coal bank showing on the outcrop 6 feet and 5 feet 3 inches, in the breast, then again near where Macdonald now stands was the old Godby opening, where we have 5 feet 4 inches of clean coal; again on the old Buckley's Mill tract in the vicinity of Raleigh Court House we have 6 feet 2 inches, with a light shale overhead. It was to develop this territory that in 1893 the Chesapeake and Ohio railroad commenced the construction of the Loop Creek project, which has been complete for ten miles and on which are now in successful operation six companies having a combined output of 103 cars per diem, working the same seam and having about the same advantages for mining. It seems that nature has favored this territory, in that as the railroad after reaching the top of the river cliffs, ascends, in like manner does the coal rise, and at the collieries the seam is in such relative position to the railroad that no incline must be resorted to.

#### MACDONALD COLLIERY COMPANY—(P. O. Macdonald.)

Located at the western extremity of the Branch R. R., ten miles from its outlet at Thurmond Sta., this company operates the Sewell seam on a lease from T. G. McKell, which seam attains at this point a thickness of 5 ft, 2 ins., being entirely clean, except where sandstone top is met with, when what is known as top coal is met having a varying thickness of from 5 in. to 1 ft. The coal

when under the main body of the hill lies regularly, and has slate top, but where the territory has light cover, the measure seems to conform to the contours of the country, and has sandstone top. The present workings of this company are confined to a point or ridge, and they are now just entering upon the main body of their lease, having an entry 2600 ft. double tracked and laid for great part of its extent with 30 lb rail. From a point about two thousand feet from the drift mouth, the loaded trips are allowed to run to the tippie by gravity. Thus far natural ventilation has been depended upon as the narrow extent of the present working and the proximity of the crop, enable them to drive an entry for air when needed. Four of such outlets are now to the crop, and I am advised by the management that when they have begun the working of the main body of coal, a fan and improved machinery for the handling of coal will be put in. As will be observed from the extent of the main entry—2600 ft.—they have been pushing their work night and day, and from the regularity with which these Loop Creek collieries have been working, but a short time will elapse before a territory of considerable extent will be developed. Immediately upon building their side-tracks this company erected quite an elaborate tippie, by which they have been prepared to furnish lump, nut, and slack, and to make an entrance into the markets of Cincinnati, heretofore rarely supplied by the New river mines.

The erection of an elaborate and large store and about 55 houses may be noted among the improvements of this company. The miner is paid by the car, as in Pocahontas.

Superintendent, S. Dixon; Mine Boss, V. A. Miller.

#### TURKEY KNOB COAL COMPANY—(P. O., Macdonald.)

Located on an adjoining McKell lease to the Macdonald Company, this operation works the Sewell seam, having at this point a thickness of 5 feet 8 inches, it being the greatest steady height worked in the vicinity. The connection with the railroad is made by a side track  $\frac{3}{4}$  mile long, and switchback. This company are also prepared to ship the different grades of coal and are shippers to the West. The top in much of the mine is poor, but they seem to give reasonable attention to the safety of employees. The ventilation and drainage are quite good and I am advised that on further developing their lease and getting under the body of the coal, they will at once place in a fan.

Superintendent, J. V. Wright; Mine Boss, Jas. Barr.

#### DUNNLOOP COAL AND COKE COMPANY—(P. O., Dunloop.)

On first starting its operation this company had much trouble in forcing through a vault in the main entry, which for quite a distance shut off the coal. Since getting through same the seam had showed a thickness of 5 feet 2 inches, with, in most places, a slate

top. The ventilation, by means of a furnace, is quite good, with the single exception of the first left entry, where they struck a roll, and where they drove too far without a break-through; few men, however, worked ahead of this point, which was shortly stopped on account of water. The drainage and general condition of the mine is satisfactory. The company, like most of the Loop creek operations has much annoyance from the treacherous top, and have been forced lately to place cross timbers, 5 by 8 inches, across the bearings, where permanent haulways are needed. A tramway 900 feet long connects the tippie and mine.

Superintendent, Floyd Walker; Mine Boss, W. Herbertson.

COLLINS COLLIERY COMPANY.—P. O., Glenjean.)

Located at the town of Glenjean,  $6\frac{1}{2}$  miles from Thurmond, this company in its two mines operates the Sewell or Nuttall seam, having a thickness of 5 feet of clean coal. This is also a McKell lease, and of its whole extent but about 25 acres fails to be underlaid with the coal. Coming up the short line we find the seam about 65 feet above the roadbed at Harvey, and at Glenjean we have the coal passing below the level of the creek and rising therefrom at a point 1 mile above. Each mine is ventilated by a separate Brazil fan, that of No. 1 mine on the left of Crooked branch being 15 feet, and that of No. 2, just across the hollow, being an 18 foot fan of same make. The ventilation in both mines is satisfactory, and although the drainage of No. 1 is good, I have been forced to call the mine boss's attention to the accumulation of water in the entries of No. 2. Lately the first right hand entry, formerly being driven for drainage, has holed out near the railroad, and it being the lowest point in the whole lease should, with attention, drain the workings. Connecting mine No. 1 with No. 2 is an elaborate tippie at an elevation of 34 feet above the railroad track; while the coal from both mines is hauled and landed on the one tippie, whence it is dumped direct into cars on the siding. Immediately connected with the tippie is a slack bin, with a capacity of 550 tons, a complete set of conveyors and scrapers, and 100 ovens, built on the Bee Hive pattern of the Norfolk and Western Railroad operations. The plant is constructed for a capacity of 1,500 tons per diem and is the most elaborate outfit in the New or Kanawha River field. I am informed that the hoisting engines, built and patented by the Southside Foundry and Machinery Company, of Charleston, are the largest in use for similar purposes, having four connected drums, and a combined energy of 350 horse power.

President, Justus Collins; Mine Boss, James Kelso.

STAR COAL AND COKE COMPANY—(P. O., Redstar.)

This company is located at Star, five and a-half miles above Thurmond, and operates the Sewell seam—having a thickness of four feet seven inches and is the only company on Loup Creek de-

veloping its own property. In the outset, this company was put to a great deal of annoyance and expense by reason of encountering a serious roll, which entirely shut out the coal by sandstone. However, they have gone successfully through the same. Where slate is met with as top, it is very treacherous, and much attention on the part of the mine boss is required to prevent casualties. A system of rope haulage, manufactured by the Milhollands, is employed to bring the coal to the tippie. The ventilation by means of a furnace is fair, and I am informed, that the company intend putting in a fan at once. The working being on the dip, much trouble is experienced with the water.

Superintendent, George Jones ; Mine Boss, Joseph Thurmond.

#### HARVEY COAL AND COKE COMPANY—(P. O., Bissel.)

Located five miles above Thurmond. This company is the first one to work the Sewell seam, which at this point shows a thickness of five feet four inches. When first opening up the mine, the coal was in several places six feet, but I notice on investigating this vein that its average height in all the Loup Creek mines is five feet two inches when under the body of the hill and with slate top; but where we find sandstone we find it varying sometimes reaching six feet two inches and then running down to three and one-half feet, and usually in such cases having the top coal (so called by the miners.) This is without doubt one of the most favorably laid out mines for the economic mining of coal in this territory, having the advantages of natural drainage; sufficient height above the railroad for screening the coal, and having easy grades in favor of the loads. The company have lately placed in successful operation a Thayer fan which gives excellent ventilation, while the drainage is also excellent. This mine is also subjected to the annoyance of bad top in all cases where the roof is slate. Connecting the drift mouth with the tippie is a 2,500 feet tramway, over which a locomotive is run. The tippie has just been remodeled, with one hundred ovens built and fitted with a large slack bin and a set of conveyors used for the elevation of slack from the small bin under the screens.

Superintendent, James McGuffin ; Mine Boss, A. G. Gibson.

#### New River Southside Mines.

##### THURMOND COAL COMPANY—(P. O., Concho.)

Continuing our discussion of the New River mines, and passing to the Southside of the same, we have the Thurmond Coal Company, operating a lease from the Low Estate. The Sewell or Nuttall seam is here worked having an average thickness of 50 inches, with a slate top, which in most parts of the workings is very treacherous, making the robbing of old workings dangerous. This operation consists of three openings; one, the old or No. 1, immediately adjoins the drum house and is mostly worked out, since



now only a few entries are working, and the whole of the coal will soon be pillars. For some reason, mostly due to neglect in furnishing report, this operation was left out on my last list, and from the improvements noted in the working, it may have been better that same was overlooked, as at that time I would have been forced to make any but a favorable report of its conditions; as the former management was most persistent in neglecting the carrying out of such instructions as were left with it from time to time. Of late I have heard no complaints from the men, while before I was repeatedly advised of defects; and during the last year an electric fan has been placed in the mine, giving excellent results; a ditch of considerable extent has also been cut to effectively drain off the accumulated water, and the changes within the entire mine have been most pleasing. An electric motor is employed for handling the coal from a distant point in No. 1, to the drift, while it also enters quite a way into No. 2. No. 2 is satisfactorily ventilated by a furnace and fairly well drained, while No. 3 is and has been idle for some time. The electric cutting machines have for the time being been abandoned.

It may be here noted that the greater portion of the output is shipped to the iron furnaces at Low Moor Virginia, where it is coked and used in the manufacture of iron. Another thing worthy of note is that no serious or fatal accidents have occurred at this colliery as against two fatal and six non-fatal last year.

Superintendent, G. H. Caperton; Mine Boss, Arthur Boyd.

#### RUSH RUN COAL AND COKE COMPANY—(P. O., Rush Run.)

Located on the south side of New River opposite Dimmock, this company operates the Red Ash or Fire Creek seam which at this point attains its greatest thickness, averaging 5 feet 2 inches and in some places showing 6 feet of clean coal. The territory developed is one of the most extensive on New River, having entries over 3,000 feet in length, and a capacity of 600 tons per diem. As to the general condition of the mine I can not speak very favorably as the extent of the workings justify better means of ventilation than that now in use, since by reason of the furnace being almost on the same elevation of the intake, and there being no future intake for the air available, there is great need of a fan. I called the attention of the management to this defect several times and have its letter to the effect that a fan would be ordered by October 1, 1895. This in reply to my letter to them of August 2, 1895. They have had some other changes in contemplation and I have held off asking for improvements till this late date, that all might be done together. As a developed body of coal, this is superior to any in this section, usually maintaining a good height and lumping well. The mining is done on the dip, and although considerable water has to be contended with, it is my opinion that the company employ reasonable means to keep it in check. The top consisting of from 12 to 20 inches of draw slate (which is often

overtopped by a six inch seam of coal), is very treacherous, often falling and gives the company much annoyance and expense. It may, however be noted, that while the miner is making his cut and after the same is fired the top seems to be quite safe, and it is mostly due to the effect of air and disintegration, caused greatly by the presence of the streak of coal referred to above, which renders the top in the old rooms and robbings so treacherous.

Superintendent, F. Howald ; Mine Boss, Jos. Schweitzer.

#### RED ASH COAL COMPANY.—(P. O., Fire Creek.)

This operation, located opposite Fire Creek, operates also a Low lease working the Red Ash seam, being at this point on an average five feet, but varying greatly. Sometimes showing six feet and over, and again tailing out to nothing. The output of this mine most noticeable, the lump, has gained quite a reputation for itself as a domestic fuel, much of it being shipped to the east for private uses. The ventilation of the mine is rather poor, caused more by the presence of rolls and faults than negligence of the mine boss. The drainage is unusually good. Some difficulty has been experienced by the company in getting around a very serious fault, which had shut off each entry in the mine. For the last eight months, they have been driving a test entry, and from the present indications they have again met with good coal, as it shows up in both rooms and headings five feet five inches. During the scarcity of coal while arriving around the fault, they opened up a new drift on the Rush Run side of their lease, where the coal also makes a good showing. This portion of the mine has not been driven far, and I trust that a furnace will be placed at this drift when needed. The top throughout the old workings is fair, while that in the new mine on Rush Run side is bad.

Superintendent, F. Howald ; Mine Boss, Jno. Laing.

#### BROOKLYN COAL COMPANY.—(P. O., Sewell.)

Located opposite East Sewell is the fourth of the Low mines, under the same management as the last two mentioned. The Sewell seam is here worked, having a thickness of 50 inches, with a fairly good top. The ventilation by means of a furnace is quite good, and the drainage, when we bear in mind the fact of its being mined on the dip, fair. The top in that portion of the mine near the crop is sandstone, and in this portion robbing has been started.

Top is now shot at this mine for height instead of bottom as formerly.

Superintendent, F. Howald ; Mine Boss, John Eastham.

#### CUNARD COAL COMPANY.—(P. O., Sewell.)

This operation located on the Southside of New River opposite Sewell Station, is another of the mines working the Sewell seam



on a lease from the Low Estate. The coal is four feet thick, having few rolls and faults and fair top, usually slate. The ventilation by means of a furnace is usually good, but often through the neglect of the mine boss, cutting and stoppages of the breakthroughs are not properly attended to. Some little robbing has been started on the second right, but the work is mostly new. A short while since an entry was driven through the hill to the Coal Run side, affording better means of ventilation. It seems that in driving the main entry air course under a hollow, they inadvertently passed too close to the crop, causing the top to cut badly and a portion to fall in. I spoke to the mine foreman relative to this and will look to its being timbered and held. The drainage is fair considering its dip workings. In order to preserve the main haul ways in good order, they have corduroyed or cross tied them.

Superintendent, F. Howald; Mine Boss, G. W. Eastham.

#### NEW RIVER COKE COMPANY—(P. O., Caperton.)

This mine located on the southside of New River is another lease of the Low estate, and is but an offspring of the same company on the north side of the river, having the same tippie and supplying the same block of one hundred and fifty ovens. Connection between the two mines across the river is made by a wire rope tramway, consisting of the suspension of two ropes 2,000 feet from anchor to anchor, and the traveling of two buckets thereon--the gravity of the descending load returning the empty to the drum house. The buckets have a capacity of two and a-half tons and make a trip every one and one-fourth minutes. The general condition of the mine is good, although they are much annoyed by water having to operate on the dip. The coal is four feet thick, clean, and the top after several inches of draw slate come down, good. Trouble was at first experienced in the main entry by the slate cutting and timbering was tried but abandoned, as they found pulling the draw slate best. The main entry in this mine is also cross laid.

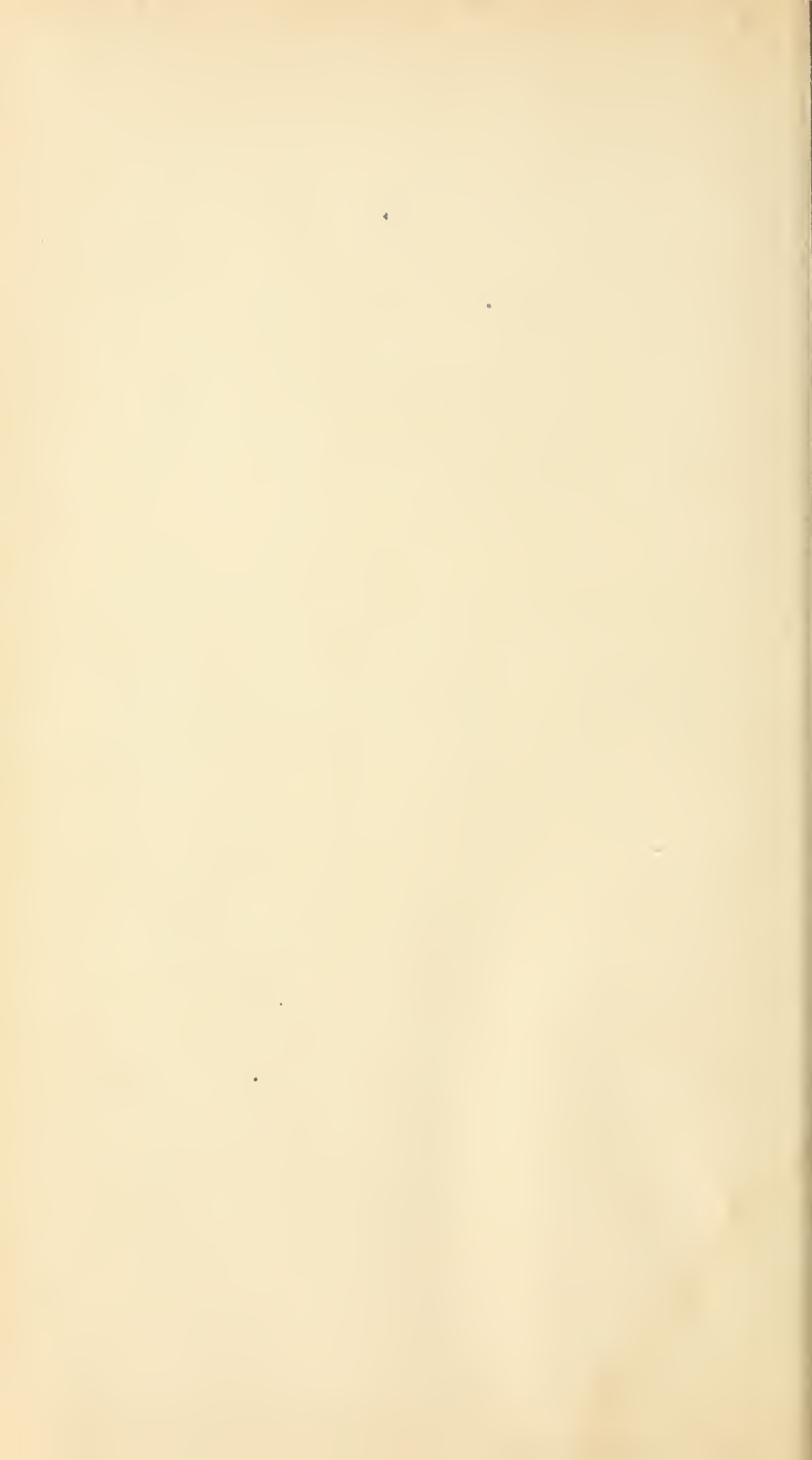
Superintendent, G. H. Caperton; Mine Boss, William Gilmour.

#### BROWN COAL COMPANY—(P. O., Nuttall.)

Located on the southside, opposite Nuttall, and is also a lease from the Low estate, operating the Sewell seam, which at this point is thirty-eight inches. At the time of the writing of this report, they had shipped but little coal and an inspection trip was not deemed necessary.

Superintendent, Percy Brown; Mine Boss, none yet.

# MINE STATISTICS.



*Table Showing the Output of Coal and Coke by Counties from June 30th, 1894, to June 30th, 1895.*

COUNTY.	Tons of Coal, 2,240 lbs.	Tons of Coke, 2,000 lbs.	Number of Mines.		Number of Ovens.		NUMBER OF EMPLOYEES.				
			Open.	Opening.	Complete.	Building.	Miners.	Inside laborers.	Outside laborers.	Making Coke.	Totals.
Wayne.....	21,101		2				24	2	2		28
Mingo.....	95,279		3	1			125	11	21		158
Logan.....	40,610		2				35	2	8		50
McDowell.....	2,440,551	504,168	31		3,758	18	2,751	310	388	916	4,865
Mercer.....	865,379	169,306	7		890		1,030	118	123	294	1,565
Putnam.....	122,057		4				367	41	50		458
Fayette.....	2,162,090	277,822	16	2	1,450	204	4,580	540	461	493	6,074
Raleigh.....	84,762		1			75	80	25	24		129
Totals.....	5,831,820	951,296	96	3	6,093	297	8,993	1,054	1,077	1,703	12,827

Table Showing Non-fatal Accidents in the Third Mining District of West Virginia.

Name.	Colliery at Which Accident Occurred.	Date.	Occupation.	Nature of Injury.	How Injured.
S. T. Lyons.....	Goodwill Coal and Coke Company	August 25, 1894	Miner.....	Clollar bone broken.....	Blas-
Lincoln Stahl.....	"	March 13, 1895	Loader.....	Leg broken.....	Fall of slate.
James Mills.....	"	April 29, 1895	Car loader.....	Leg broken.....	Loading car.
Perry Zeigler.....	Buckeye Coal and Coke Company	November 19, 1894	Loader.....	Mashed hands.....	Coupling cars.
Morgan Fragg.....	Caswell Creek Coal and Coke Company	April 25, 1895	Miner.....	Leg broken.....	Fall of slate.
Henry Belcher.....	Booth Creek Coal and Coke Company	August 20, 1894	"	Slightly mashed.....	Fall of slate.
King Montgomery.....	Mill Creek Coal and Coke Company	August 29, 1894	"	Hand mashed.....	Fall of slate.
Robt. Montgomery.....	"	January 30, 1895	"	Leg broken.....	Fall of slate.
Alex. Fairfax.....	"	March 29, 1895	"	Leg broken.....	Fall of slate.
Chas. Connor.....	"	August 14, 1894	"	Mashed foot.....	Fall of slate.
Bub Aliff.....	Coaldale Coal and Coke Company	April 8, 1895	"	Hips mashed.....	Slate.
William Nelson.....	"	April 22, 1895	"	Clollar bone broken.....	Slare.
Samuel Taylor.....	"	March 6, 1895	Water bailer.....	Mashed.....	Loading coal.
Nathan Smith.....	Elkhorn Coal and Coke Company	December 23, 1894	Miner.....	Mashed.....	Fall of coal
G. M. Robertson.....	"	March 1, 1895	Miner.....	Spinal injury.....	Various
Alex. Johnson.....	Lick Branch Coal and Coke Company	June 14, 1895	"	Various.....	Putting car on track.
Mine ac'd ut, no name.....	Upland Coal and Coke Company	December 3, 1894	Driver.....	Leg broken.....	Fall of slate.
J. C. Baley.....	Powhatan Coal and Coke Company	December 27, 1894	Miner.....	Leg broken.....	Fall of coal.
Enoch Cotton.....	"	December —, 1894	"	Foot mashed.....	Fall of slate.
Isaac Jackson.....	Lynchburg Coal and Coke Company	March 11, 1895	"	Leg broken.....	Fall of slate.
Jno. Burger.....	"	December 3, 1894	"	Legs broken.....	Fall of slate.
Charles Anderson.....	Algoma Coal and Coke Company	March 29, 1895	"	Leg broken.....	Fall of slate.
Andrew Nelson.....	Arizun Coal and Coke Company	January 19, 1895	"	Legs broken.....	Fall of slate.
W. C. Wall.....	Indian Ridge Coal and Coke Company	March 9, 1895	"	Leg broken.....	Fall of slate.
Dock Roberson.....	"	March 30, 1895	"	Leg fractured.....	Fall of coal.
George Brown.....	"	April 15, 1895	Spragger.....	Leg broken.....	Run over by car.
Luther Nelliers.....	Ash and Coal and Coke Company	April 10, 1895	Miner.....	Ribs and leg mashed.....	Fall of slate.
John West.....	Pulaski Iron Company	July 21, 1894	"	Foot mashed.....	Fall of slate.
Joe Wilkins.....	Eureka Coal and Coke Company	March 10, 1895	"	Legs broken.....	Fall of slate.
William Davis.....	Shawnee Coal and Coke Company	November 21, 1894	"	Ankle broken.....	Fall of slate.
Edward Olds.....	Empire Coal and Coke Company	March 15, 1894	"	Ankle broken.....	Fall of slate.
J. H. Simpson.....	"	July 17, 1891	"	Head hurt.....	Fall of slate.
Rich. Shady.....	Bottom Creek Coal and Coke Company	August 7, 1894	"	Back hurt.....	Fall of slate.
J. H. Walker.....	"	December —, 1894	"	Back hurt.....	Fall of slate.
J. E. Moss.....	"	January 21, 1895	"	Head cut.....	Fall of slate.
Robert Tumms.....	"	March 7, 1895	"	Leg broken.....	Fall of slate.
James Curus.....	"	April 17, 1895	"	Foot mashed.....	By car.
Charles Rogers.....	"	November 3, 1894	"	Leg broken.....	Fall of coal.
Dan. Nyles.....	Tidewater Coal and Coke Company	December 31, 1894	"	Leg broken.....	By cars.
Ferd Trump.....	"	July 27, 1894	"	Back hurt.....	Fall of slate.
A. J. Loving.....	Beary Coal and Coke Company				

Table Showing Non-Fatal Accidents in the Third Mining District of West Virginia.—Continued.

Name.	Colliery at Which Accident Occurred.	Date.	Occupation.	Nature of Injury.	How Injured.
Emmanuel Harris	Beury Coal & Coke Company	December 19, 1891	Miner	Hip dislocated	Fall of slate.
Job McComas	Dimmock Coal and Coke Company	March 9, 1895	"	Ribs broken	"
Ned Brogan	New River Coke Company	July 31, 1891	"	Back hurt	Fall of shed roof.
H. Harrison	"	September 19, 1891	"	Foot mashed	Car.
Jno. Pegram	"	January 3, 1895	"	Wrist fractured	Fall of slate.
Thos. Blair	Nuttallburg Coal and Coke Company	September 19, 1891	"	Wrist fractured	Gas.
Jno. T. Thomas	Colinus Colliery Company	October 29, 1891	Driver	Broken hand	Kicked.
Chas. Henderson	"	December 13, 1891	"	Arm fracture	Caught by car.
W. McGee	"	December 15, 1891	Miner	"	Blas.
Johnson Carter	"	May 10, 1895	"	Wrist fracture	Caught by car.
Orville McMorton	Rush Run Coal and Coke Company	August 31, 1891	Driver	Hip dislocated	Run over by car.
C. C. Vaughan	"	October 6, 1895	Miner	Collar bone broken	Fall of slate.
Wm. Coleman	"	March 30, 1895	Driver	Thigh broken	Run over by car.
B. G. Haden	"	January 8, 1895	Miner	Burned	Gas
Jacob Long	Canard C. Company	September 13, 1891	"	Back injured	Fall of slate.
M. Teustruck	Canard Co.	February 12, 1895	"	Slight injury	"
Geo. Collins	Smokeless Coal Company	December 4, 1895	"	Arm broken	"
Joseph Williams	Itallinger Coal and Coke Company	September 3, 1891	"	Back injured	"
Hartwell Ellis	Mount Carbon Company Ltd	April 7, 1895	"	Leg broken	Fall of coal.
Chas. Duncan	"	January 4, 1895	"	Leg injured	By car.
Jas. Perry	"	March 2, 1895	"	2 ribs broken	"
Reuben Loug	"	March 6, 1895	Miners	Burned	Powder.
Toney, Wm. Duncan	"	March 6, 1895	Driver	Back and Loin	Squeezed by mule.
J. E. & W. H. Campbell	St. Clair Company	April 5, 1895	Miner	Injured	Fall of slate.
Jas. Lanabe	Wyant Coal and Coke Company	August 2, 1891	"	Leg broken	"
Jas. Irvings	W. R. Johnson	November 28, 1891	Driver	Breast hurt	Collision of cars.
Ed. Merels	Carver Bros.	May 23, 1895	Miner	Hip dislocated	Fall of slate.
Pete Jarrett	M. T. Davis & Co.	January 6, 1895	"	Cut	Fall of coal.
Holly Seages	"	July 8, 1895	Trapper	Leg hurt	Fall of slate.
Jno. Hopkins	Marmet, Smith Coal and Mining Company	October 15, 1891	Miner	Injured	"
Robt. Smith	Carver Coal Company	May 18, 1895	"	Hand Injured	"
Ed. Cobbs	Crozer Coal & Coke Co.	September 11, 1891	"	Seriously mashed	"
W. P. Pack	"	November 23, 1891	"	Leg broken	"
M. G. Brown	"	August 21, 1891	"	Back injured	"
Frank Lewis	"	March 22, 1891	"	Legs hurt	"
Jas. Bush	"	June 6, 1891	"	Leg broken	Caught by car



Name of Colliery.	Name of Operator.	Name of Superintendent.	Location—County.	Post-office Address.
Goodwill.....	Goodwill Coal & Coke Co.	Philip Goodwill.....	Mercer.....	Goodwill.....
Louisville.....	Louisville Coal and Coke Co.	Justus Collins.....	".....	".....
Buckeye.....	Buckeye Coal and Coke Co.	John D. Herwit.....	".....	Bramwell.....
Caswell and Hemlock.....	Caswell Creek Coal and Coke Co.	Jenkin Jones.....	".....	".....
Reliance.....	Booth Bowen Coal and Coke Co.	J. P. Bowen.....	".....	Coopers.....
Sterling.....	Mill Creek Coal and Coke Co.	John Cooper.....	".....	".....
Caldale.....	Coalale Coal and Coke Co.	Thos. Cooper.....	".....	".....
Elkhorn.....	Elkhorn Coal and Coke Co.	W. H. Barlow.....	McDowell.....	May Beury.....
Shamokin.....	Shamokin Coal and Coke Co.	John Hunter.....	".....	".....
Norfolk.....	Norfolk Coal and Coke Co.	Stuart M. Buck.....	".....	".....
Angle.....	".....	".....	".....	".....
Lick Branch.....	Lick Branch Coal and Coke Co.	E. J. Hutchison.....	".....	".....
Turkey Gap.....	Turkey Gap Coal and Coke Co.	W. H. McQuail.....	".....	Ennis.....
Houston.....	Houston Coal and Coke Co.	T. E. Houston.....	".....	Elkhorn.....
Crozier.....	Crozier Coal and Coke Co.	F. J. Morgan.....	".....	".....
Upland.....	Upland Coal and Coke Co.	Rolfe Gerhardt.....	".....	Powhatan.....
Powhatan.....	Powhatan Coal and Coke Co.	L. E. Tierney.....	".....	Kye.....
Lynchburg.....	Lynchburg Coal and Coke Co.	L. E. Tierney.....	".....	".....
Elk Ridge.....	Elk Ridge Coal and Coke Co.	H. B. Wright.....	".....	Algoma.....
Algoma.....	Algoma Coal and Coke Co.	W. H. Thomas.....	".....	Gilliam.....
Gilliam.....	Gilliam Coal and Coke Co.	James Johnson.....	".....	Worth.....
Rolfe.....	Rolfe Coal and Coke Co.	Geo. Buddock.....	".....	McDowell.....
Arlington.....	Arlington Coal and Coke Co.	Jas. Johnson.....	".....	Worth.....
Roanoke.....	Roanoke Coal and Coke Co.	W. S. Conell.....	".....	".....
Indian Ridge.....	Indian Ridge Coal and Coke Co.	C. Balsford.....	".....	McDowell.....
McDowell.....	McDowell Coal and Coke Co.	T. T. Linewerter.....	".....	Ashland.....
Ashland.....	Ashland Coal and Coke Co.	T. B. Dennen.....	".....	McDowell.....
Greenbrier.....	Greenbrier Coal and Coke Co.	Hugh Johnson.....	".....	Ashland.....
Keystone.....	Keystone Coal and Coke Co.	J. K. F. Steele.....	".....	Keystone.....
Pulaski.....	Pulaski Iron Co.	S. F. Morris.....	".....	Pechman.....
Eureka.....	Eureka Coal and Coke Co.	L. E. Tierney.....	".....	".....
Shawnee.....	Shawnee Coal and Coke Co.	W. R. Graham.....	".....	".....
Empire.....	Empire Coal and Coke Co.	W. D. Ord.....	".....	Landgraf.....
Peerless.....	Peerless Coal and Coke Co.	H. C. Zacharias.....	".....	Vivian.....
Bottom Creek.....	Bottom Creek Coal and Coke Co.	Wm. Spencer.....	".....	Tidewater.....
Tidewater.....	Tidewater Coal and Coke Co.	Jas. Johnson.....	".....	".....
Charleston.....	Charleston Coal and Coke Co.	T. L. Hartzle.....	".....	Welch.....
Thacker.....	Thacker Coal and Coke Co.	I. A. Williams.....	Mingo.....	Thacker.....
Maritime.....	Maritime Coal Co.	Robert Manzhline.....	".....	".....
Lynn.....	Lynn Coal and Coke Co.	S. J. Quimby.....	".....	Sheppard.....
Dingess.....	Pearle Mining Co.	J. P. McCafferty.....	Logan.....	Dingess.....

Name of Colliery.	Name of Operator.	Name of Superintendent.	Location—County.	Post-office Address.
Union	Union Mining & M'fg Co.	M. D. Janney	Logan	Dingess.
Wells Branch	Wells Branch Coal Co.	M. T. Davis	Wayne	Preston.
Eureka	M. T. Davis & Co.	John Carver	Fayette	Montgomery.
Mecca	Mecca Coal & Coke Co.	J. W. Straughan	"	Montgomery.
Straghan	Coal Valley Mining Co.	J. A. Bertram	"	Montgomery.
Crescent	W. R. Johnson	J. A. Bartan	"	Crescent
Crescent No. 2	W. R. Johnson	Enoch Carver	"	Crescent.
Edgewater	Carver Bros.	Wm. Wyatt	"	Edgewater.
Eagle	Wyant Coal & Coke Co.	M. T. Davis	"	Eagle.
St. Clair	The St. Clair Co.	M. T. Davis	"	Eagle.
Diamond	Wyant Coal & Coke Co.	Wm. Wyatt	"	Eagle.
Forrest Hill	Forest Hill Coal Co.	William Sharpe	"	Eagle.
Powe Hon	Mt. Carbon Co. (L'td)	Evan Powell	"	Eagle.
Great Kanawha	Great Kanawha Colliery Co. (L'td)	Symington Macdonald	"	Powerlton
Ansted	The Gauley Mountain Coal Co.	Wm. N. Page	"	Mt. Carbon.
Gaymont	Doitz, Masterson Coal & Coke Co.	J. A. Ditz	"	Ansted.
Sunnyside	Thomas Coal Co.	D. P. Bishop	"	Hawk's Nest.
Elino	W. A. Burke Coal Co.	W. A. Burke	"	Sunnyside.
Fayette	Fayette Coal & Coke Co.	J. A. Boone	"	E. mo.
Nuttallburg	Nuttallburg Coal & Coke Co.	Wm. H. Holland	"	Fayette.
Keeney's Creek	Nuttallburg Coal & Coke Co.	Wm. H. Holland	"	Nuttall.
Brown's	Brown Coal Co.	Perry Brown	"	Nuttall.
Caperton	Wm. Beury Cooper & Co.	William Douer	"	Caperton.
New River	New River Coke Co.	G. H. Caperton	"	Caperton.
South Caperton	New River Coke Co.	G. H. Caperton	"	Caperton.
Cliff Top	Longdale Iron Co.	J. A. McGuffin	"	Sewell.
Guard	Guard Coal Co.	J. Howard	"	Sewell.
Brooklyn	Brooklyn Coal Co.	J. Howard	"	Sewell.
Fire Creek	Fire Creek Coal & Coke Co.	G. H. Caperton	"	Fire Creek.
Dunlow	Red Ash Coal Co.	F. Howard	"	Fire Creek.
Central	Central Coal Co.	J. R. Seal	"	Fire Creek.
Echo	Beury Cooper & Co.	J. L. Beury	"	Beury.
Rush Run	Rush Run Coal & Coke Co.	F. Howard	"	Rush Run.
Dunmock	Dunmock Coal & Coal Co.	W. T. Thayer	"	Thurmond.
Thurmond	Thurmond Coal Co.	G. H. Caperton	"	Concho.
Stoue Cliff	Beury Coal & Coke Co.	C. C. Kubarh	"	Stonecliff.
Beechwood & Keystone	Beechwood Coal & Coke Co.	C. C. Beury	"	Claremont.
Alaska	Alaska Coal & Coke Co.	Geo. Lawton	"	Claremont.
Slater	Sterling Coal & Coke Co.	John I. Jones	"	Coit.
Quinnimont	Quinnimont Coal Co.	D. C. Boyce	"	Quinnimont.
Royal	Royal Coal & Coke Co.	Jas Kay	Raleigh	Prince.

Table Showing Location of Collieries in the Third Mining District of West Virginia.—Continued.

Name of Colliery.	Name of Operator.	Name of Superintendent.	Location—County.	Post Office Address.
	LOOP CREEK TERRITORY.			
Macdonald .....	Macdonald Colliery Company .....	Samuel Dixon .....	Fayette .....	Macdonald.
Turkey Knob .....	Turkey Knob Coal Company .....	J. V. Wright .....	" .....	Macdonald.
Dunloop .....	Dunn Loop Coal and Coke Company .....	Floyd Walker .....	" .....	Dun Loop.
Glenjean .....	Collins Colliery Company .....	Justus Collins, (Pres't) .....	" .....	Glenjean.
Star .....	Star Coal and Coke Company .....	Geo. Jones .....	" .....	Redstar.
Harvey .....	Harvey Coal and Coke Company .....	J. B. McGuffin .....	" .....	Bissell.
	KEENEYS CREEK TERRITORY.			
Cavendish .....	F. J. Cavendish Company .....	F. J. Cavendish .....	" .....	Lookont.
Dubree .....	Rothwell Coal Company .....	F. T. Rothwell .....	" .....	Nuttall.
Smokeless .....	Smokeless Coal Company .....	J. C. Campbell .....	" .....	Winoma.
Ballinger, No. 1 and 2 .....	Ballinger Coal and Coke Company .....	Geo. Holland .....	" .....	Nuttall.
Boone .....	Boone Coal and Coke Company .....	W. F. Boone .....	" .....	Winona.
Florence .....	Smith-Marmet Coal and Mining Company .....	Ed. Schonebaum .....	Putnam .....	Raymond City.
Queen City .....	Queen City Coal Company .....	Thos. B. Bancroft .....	" .....	"
Bancroft .....	Bancroft Coal Company .....	Jas Carver .....	" .....	Bancroft.
Plymouth .....	Carver Coal Company .....		" .....	Plymouth.

*Table Showing the Analyses of the Coal Mined from the Different Seams in the Third Mining District of West Virginia.*

Name of Seam.	Fixed Carbon.	Volatile Matter.	Water.	Sulphur.	Ash.	Name of Company Operating.
Pocahontas or No. 3 .....	75.50	19.07	1.06	5.95	3.98	Greenbrier Coal and Coke Co.
Pocahontas or No. 3 .....	73.80	20.96	.68	3.25	5.28	Bottom Creek Coal and Coke Co.
Pocahontas or No. 3 .....	75.40	17.57	.70	2.29	6.33	Keystone Coal and Coke Co.
Fire Creek or Red Ash .....	75.58	22.33	0.50	0.51	1.05	Beury Coal and Coke Co.
Fire Creek or Red Ash .....	75.46	22.60		0.47	0.71	Rush Run Coal and Coke Co.
Lower Kittanning or Ansted .....	65.00	29.70	1.00	0.30	4.00	Gauley Mountain Coal Co.
Sewell or Nuttallburg .....	70.65	26.64	0.67	0.50	1.53	Payette Coal and Coke Co.
Sewell or Nuttallburg .....	74.12	22.15	0.65	0.84	3.08	Macdonald Colliery Co.
Sewell or Nuttallburg .....	70.68	26.64	0.67	0.49	1.53	Ballinger Coal and Coke Co.
Sewell or Nuttallburg .....	75.84	21.83	0.52	0.37	1.85	Collins Colliery Co., Glenjean.
Upper Freeport .....	56.80	34.63	3.14	0.65	5.33	Wells Branch Coal Co.
Thacker seam .....	59.50	35.61	1.54	0.99	2.75	Thacker Coal and Coke Co.
Diamond or No. 2 Gas .....	61.75	23.20	0.83	0.50	1.43	Mt. Carbon Co., Limited.

TABLE SHOWING COKE ANALYSES.

Pocahontas or No. 3 .....	93.41	1.43	0.37	0.85	4.76	Average Flat Top Field.
Fire Creek or Red Ash .....	91.94	0.49	0.15	0.33	6.92	Fire Creek Coal and Coke Co.
Sewell or Nuttallburg .....	96.11	0.14	0.29	0.56	2.86	New River Coke Co.
Eagle or No. 1 .....	90.88			0.57	8.55	Wyant Coal and Coke Co.
Diamond or No. 2 .....	91.05	0.66	0.12	0.63	7.55	Mt. Carbon Co., Limited.
Lower Kittanning or Ansted .....	88.10		1.40	0.50	10.00	Gauley Mountain Coal Co.

*Table Showing the Analyses of Coke Made of West Virginia Coal, Compared with that of Other Coking Districts.*

Name of District.	Fixed Carbon.	Volatile Matter.	Water.	Sulphur.	Ash.
Birmingham .....	87.30	0.80	0.16	1.19	10.55
Pocahontas .....	93.41	1.46	0.37	0.85	4.76
New River .....	92.15	1.12	0.10	0.60	6.01
Connellsville .....	88.96	0.43	0.06	0.81	9.74

Table Showing Fatal Accidents in the Third Mining District of West Virginia.

Name.	Colliery Where Killed.	Date of Accident.	Occupation.	How Killed.
Gabriel Proctor.....	Goodwill Coal & Coke Co.	October 13, 1894	Miner	Fall of slate.
Benjamin Alizer.....	"	April 30, 1895	Helper	Fall of slate.
Henry Belcher.....	Booth Bowen Coal & Coke Co.	April 15, 1895	Miner	Fall of slate.
Ellis Tucker.....	Mill Creek Coal & Coke Co.	August 3, 1894	Miner	Fall of slate.
Luther Johnson.....	Coledale Coal & Coke Co.	January 3, 1895	Coke man	Struck by engine.
J. Oakley Miles.....	Lick Branch Coal & Coke Co.	July 14, 1891	Miner	Skull mashed.
Levi Beard.....	"	April 27, 1895	Miner	Washed.
Fleety Parker.....	Lynchburg Coal & Coke Co.	October 11, 1894	Miner	Locomotive.
Chas. Hendricks.....	"	October 27, 1894	Miner	Fall of coal.
Solomon A. Willie.....	Elk Ridge Coal & Coke Co.	November 19, 1894	Miner	Fall of slate.
J. L. Lewis.....	"	July 12, 1895	Miner	Fall of slate.
Jas H. Bag rdush.....	Algoma Coal & Coke Co.	November 12, 1894	Miner	Fall of slate.
Jas. Schmuske.....	"	March 6, 1895	Miner	Fall of slate.
Robert Jackson.....	"	April 24, 1895	Miner	Fall of slate.
Dan. Henderson.....	Gilliam Coal & Coke Co.	December 23, 1891	Miner	By mine car.
J. E. Croft.....	"	February 2, 1895	Miner	Fall of slate.
Monroe D. Smith.....	Indian Ridge Coal & Coke Co.	February 20, 1895	Miner	Fall of slate.
Wm. Gravelly.....	"	August 12, 1894	Miner	Fall of slate.
Harry Robertson.....	McDowell Coal & Coke Co.	March 15, 1895	Miner	Fall of slate.
Jas. Campbell.....	Eureka Coal & Coke Co.	September 7, 1894	Driver	Collision of cars.
Antonio Negro.....	Bottom Creek Coal & Coke Co.	July 11, 1894	Miner	Fall of slate.
Alfred King.....	"	December 10, 1891	Miner	Fall of slate.
Jno. Wily.....	"	July 6, 1894	Miner	Fall of slate.
Clein Hurt.....	"	July 27, 1894	Miner	Caught by car.
Robert Williams.....	Tidewater Coal & Coke Co.	December 7, 1894	Miner	Fall of slate.
John Williams.....	Thacker Coal & Coke Co.	July 26, 1895	Miner	Fall of slate.
Flor-nee Morris.....	Sterling Coal & Coke Co.	February 13, 1895	Miner	Fall of slate.
Chas. Palmer.....	Fire Creek Coal & Coke Co.	January 4th, 1895	Miner	Fall of slate.
John Oblev.....	New River Coke Co.	March 18, 1895	Miner	Fall of slate.
George Tully.....	Deitz, Masterson Coal & Coke Co.	September 28, 1891	Driver	Blasting.
Herbert Hitt.....	Gauley Mountain Coal Co.	August 2, 1894	Miner	Thrown by mule.
Frank Mallaly.....	"	October 6, 1894	Miner	Fall of slate.
Elija Heaton.....	Macdonald Colliery Co.	November 20, 1894	Trapper	Run over by car.
Roy Brown.....	Dun Loop Coal & Coke Co.	February 2, 1895	Miner	Fall of rock.
Chas. Garland.....	"	December 14, 1894	Miner	Fall of slate.
C. Bolen.....	"	April 2, 1895	Miner	Fall of coal.
Jno C. Page.....	Col'ins Colliery Co.	January 9, 1895	Miner	Fall of slate.
Chas. Lee.....	"	October 29, 1894	Miner	Fall of slate.
Joe Caloin.....	"	January 30, 1895	Miner	Fall of slate.
Harry Berryman.....	Star Coal & Coke Co.	March 13, 1895	Miner	Fall of coal.
		June 10, 1895	Miner	Fall of slate.

Table Showing Fatal Accidents in the Third Mining District of West Virginia.—Continued.

Name.	Colliery Where Killed.	Date of Accident.	Occupation.	How Killed.
Alex. Manfert.....	Red Ash Coal Co.....	November 8, 1894.....	Miner.....	Fall of slate.
Jacob Ellis.....	Cunard Coal Co.....	November 20, 1894.....	Tippie Man.....	Runaway car.
H. Walker.....	Boone Coal & Coke Co.....	May 28, 1895.....	Miner.....	Fall of slate.
Ed. Barrett.....	Mt. Carbon Co., (L. F.).....	April 24, 1895.....	Miner.....	Fall of slate.
A. S. Eastman.....	Great Kanawha Colliery Co.....	June 19, 1895.....	Miner.....	Fall of coal.
Floyd E. Grey.....	Wyant Coal & Coke Co.....	February 19, 1895.....	Miner.....	Fall of slate.
Thos. Beirly.....	Carver Bros.....	November 23, 1894.....	Miner.....	Fall of slate.
Elija Lewis.....	Carver Coal Co.....	August 7, 1894.....	Miner.....	Wine car.
Jasper Harrison.....	".....	December 3, 1894.....	Miners.....	Burned.
F. O. Harrison.....	".....	May 18, 1895.....	Miners.....	Fall of slate.
Andrew E. Smith.....	Grozer Coal & Coke Co.....	July 27, 1894.....	Miner.....	Fall of coal.
Chas. Smith.....	".....	September 11, 1894.....	Miner.....	Fall of slate.
J. H. Thompson.....	".....	".....	".....	".....
Ed. Cobbs.....	".....	".....	".....	".....



Table Showing Number of Employees, &amp;c., of Collieries in the Third Mining District of West Virginia.

NAME OF COMPANY.	Number of Em- ployees.		Kind of Mine.	Mode of Ventilation.	Seam Worked.	COAL.		Number of coke ovens.	Number under consti- tution.
	Inside mine.	Outside mine.				Thick.	Kind.		
M. T. Davis & Co.	27	9	Drift	furnace	Block, or No. 5	6	semi-bituminous.		
M. T. Davis & Co.	46	11	"	fan	Coal Valley or No. 2	4	"		
Mecca Coal & Coke Co.	105	14	"	fan	Gas No. 2	4	bituminous		
W. R. Johnson, 1, 2 and 3	215	25	"	furnace	No. 2 and No. 5	4½ & 6	"	94	
Coal Valley Mining Co.	57	6	"	"	Gas or No. 2	4	"		
Carver Bros.	162	23	"	"	Gas, Eagle & No. 2	5, 4 & 6	"		
Wyant Coal and Coke Co.	55	5	"	"	Eagle or No. 1	4	"	54	
St. Clair Co.	91	16	"	"	No. 1 & No. 2	4, 3 & 5	"	78	
Wyatt Coal and Coke Co.	90	9	"	"	Gas or No. 2	5	"		
Forest Hill Coal Co.	25	8	"	"	"	5	"		
Mount Carbon Co., (Limited)	299	18	"	natural	"	5	"	202	
Gt. Kanawha Colliery Co., (Limited)	122	10	"	fan	"	4	"	66	
Gt. Kanawha Colliery Co.	82	6	"	natural	"	4	"		
Gauley Mountain Coal Company	80	15	"	fan	Ansted or L. K.	5 to 11	"	102	
Deitz-Masterson Coal Co.	56	4	"	urnace	Sewell	3	"	28	
Thomas Coal Co.	71	4	"	"	"	3	"	18	
W. A. Burke Coal Co.	35	5	"	"	"	3	"		
Fayette Coal and Coke Co.	140	10	"	"	"	3	"	12	
Nuttallburg Coal and Coke Co.	132	18	"	"	"	3½	"	81	
(Kenney's).	100	14	"	natural	"	3½	"		
Brown Coal Co.	16	4	"	furnace	"	4	"		
Wm. Beury Cooper & Co.	18	3	"	natural	"	4	"		
New River Coke Co.	120	10	"	furnace	"	4	"	133	
New River Coke Co., S. Side	78	4	"	"	"	4	"		
Longdale Iron Co.	165	12	"	"	"	32	"	193	
Cunard Coal Co.	55	6	"	"	"	50	"		
Brooklyn Coal Co.	71	9	"	"	"	51	"		
Fire Creek Coal and Coke Co.	130	15	"	fan	Fire Creek	3	"	95	
Red Ash Coal Co.	103	24	"	furnace	"	5	"		
Central Coal Co.	110	12	"	furnace	"	4	"	50	
Beury, Cooper & Co.	92	11	"	fan	Fire Creek & Sewell	4, 2 & 4	"	63	
Rush Run Coal and Coke Co.	113	10	"	furnace	Fire Creek	5	"		

Table Showing Number of Employees, &amp;c., of Collieries in the Third District of West Virginia—Cont.

NAME OF COLLIERY.	Number of Em- ployees.		Kind of mine.	Mode of Ventilation.	Seam Worked.	COAL.		Number of coke ovens now under construc- tion.	
	Inside mine.	Outside mine.				Thick.	Kind.		
									At coke ovens.
LOOP CREEK TERRITORY									
Dimmeck Coal and Coke Company.....	127	8	Drift.	furnace.	Fire Creek.	4	Bituminous.	.....	
Thurmond Coal Company.....	146	12	"	fan & furnace.	Sewell.	5	"	.....	
Beury Coal and Coke Company.....	133	10	"	furnace.	Fire Creek & Sewell	3½ & 4	"	6	
Beechwood Coal and Coke Company.....	200	25	"	furnace.	Fire Creek	4½	"	.....	
Alaska Coal and Coke Company.....	107	11	"	furnace.	"	3	"	20	
Sterling Coal and Coke Company.....	90	10	"	furnace.	"	36	"	.....	
Quinnimont Coal Company.....	73	22	"	natural.	"	4	"	100	
Royal Coal and Coke Company.....	105	24	"	furnace.	"	3½	"	75	
KEENEY CREEK TERRITORY.									
Macdonald Colliery.....	160	10	Drift.	natural.	Sewel	5	Bituminous.	.....	
Turkey Knob Coal Company.....	85	16	"	furnace.	"	5	"	.....	
Dunn Loop Coal and Coke Company.....	105	15	"	furnace.	"	5	"	.....	
Collins Colliery Company.....	125	15	Slope	fans	"	5	"	.....	
Star Coal and Coke Company.....	52	6	Drift.	fan	"	5	"	100	
Haney Coal and Coke Company.....	95	17	Drift.	fan	"	5	"	100	
PUTNAM TERRITORY.									
Cavendish Company.....	15	2	Drift.	furnace.	Sewel	10	Bituminous	.....	
Rothwell Coal Company.....	72	5	"	furnace.	"	3½	"	.....	
Smokeless Coal Company.....	58	5	"	furnace.	"	40	"	.....	
Ballinger Coal Company, 1 and 2.....	80	9	"	natural.	"	4	"	.....	
Boone Coal and Coke Company.....	44	4	"	furnace.	"	4	"	.....	
LITTLE MARMET-COAL MINING COMPANY.									
Queen City Coal Company.....	10	2	"	furnace.	Pittsburg	5½	Splint.	.....	
Bancroft Coal Company.....	33	4	"	furnace.	"	4 to 5	"	.....	
Carver Coal Company.....	75	14	"	furnace.	"	5	"	.....	

Table Showing Number of Employees, Etc., of Collieries in the Third District of West Virginia. — Continued.

NAME OF COMPANY.	Number of Em- ployees.			Kind of Mine	Mode of Ventilation.	COAL.			Number of coke ovens	No. of coke ovens now under construction.	
	Inside Mine.	Outside Mine.	At coke ovens.			Seam Worked.	Thickness.	Kind.			
											Total.
POCAHONTAS TERRITORY.											
Goodwill Coal and Coke Company	80	10	15	105	Drift	Fan	No. 3 or Pocahontas.	Bituminous.	50		
Louisville Coal and Coke	105	10	28	143					75		
Booth, Bowen Coal and Coke Company	199	22	36	257					174		
Buckeye Coal and Coke Company	144	11	20	175					100		
Caswell Creek Coal and Coke Company	325	15	35	375					231		
Mill Creek Coal and Coke Company	130	30	75	235					150		
Coaldale Coal and Coke Company	165	25	85	275					110		
Elkhoru Coal and Coke Company	177	10	40	227					150		
Shamokin Coal and Coke Company	170	10	40	240					150		
Norfolk Coal and Coke Company	135	20	50	205					172		
(Angle.)	39	5	15	59					32	18	
Lick Branch Coal and Coke Company	105	9	42	156					120		
Turkey Gap Coal and Coke Company	140	25	65	230					200		
Houston Coal and Coke Company	140	20	32	192					150		
Grozier Coal and Coke Company	255	34	89	378					300		
Upland Coal and Coke Company	125	14	40	179					200		
Powhatan Coal and Coke Company	110	15	55	180					154		
Lynchburg Coal and Coke Company	98	17	55	165					134		
Elk Ridge Coal and Coke Company	60	7	28	95					100		
Algoma Coal and Coke Company	115	20	70	195					175		
Gilliam Coal and Coke Company	97	8	15	120		Furnace			100		
Rolfe Coal and Coke Company	90	20	14	124					100		
Roanoke Coal and Coke Company	68	10		78					100		
Arlington Coal and Coke Company	63	9	22	184		Fan			100		
Indian Ridge Coal and Coke Company	60	5		65		Furnace			100		
McDowell Coal and Coke Company	90	20	9	119		Fan			100		
Ashland Coal and Coke Company	61	12		73		Furnace			100		
Greenbrier Coal and Coke Company	84	5	20	109		Fan			100		
Key stone Coal and Coke Company	80	6	20	106		Furnace			100		
Pulaski Iron Company	150	10	40	200		Fan			153		

Table Showing Number of Employees, Etc., of Collieries in the Third District of West Virginia—Continued.

3d Dist.]

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NAME OF COMPANY.	Number of Em- ployes.				Kind of Mine.	Mode of Ventilation.	COAL				Number of coke ovens.	No. of coke ovens now under construction.
	Inside mine.	(Outside mine.	At Coke ovens.				Seam Worked.	Thickness.	Kind.			
			Total.	Ft.								
										In		
Eureka Coal and Coke Company	95	10	70	175	Drift	No. 3 or Pocahontas	.....	Bituminous.	.....	114		
Shawnee Coal and Coke Company	65	25	26	110	"	"	"	"	"	100		
Empire Coal and Coke Company	60	6	10	76	"	"	"	"	"	100		
Peerless Coal and Coke Company	168	6	46	220	"	"	"	"	"	154		
Bottom Creek Coal and Coke Company	81	13	19	113	"	"	"	"	"	100		
Tidewater Coal and Coke Company	90	7	20	117	Slope	"	"	"	"	100		
Thacker Coal and Coke Company	68	18	76	76	Drift	Thacker	5 to 8	Splint.	.....	.....		
Maritime Coal and Coke Company	45	5	50	50	"	"	5	"	"	.....		
Lynn Coal and Coke Company	22	8	30	30	"	"	52	"	"	.....		
Pearle Mining Company	42	8	50	50	"	Dingess	4	"	"	.....		

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